DCR-TRV6/TRV6E/TRV11/
TRV11E/TRV20/TRV20E
RMT-808/809/811/812

SERVICE MANUAL

Ver 1.1 2000. 06

Level 1

Self Diagnosis
Supported model

US Model
Canadian Model
Korea Model
DCR-TRV6/TRV11/TRV20
AEP Model
UK Model
Australian Model
Chinese Model
DCR-TRV6E/TRV11E/TRV20E
E Model
Hong Kong Model
Tourist Model
DCR-TRV6/TRV6E/TRV11/
TRV11E/TRV20/TRV20E

J MECHANISM

Photo : DCR-TRV20E
RMT-811

On the VC-240/241 board

This service manual provides the information that is premised the circuit board replacement service and not intended repair inside the VC-240/241 board.

Therefore, schematic diagram, printed wiring board and electrical parts list of the VC-240/241 board are not shown.

The following pages are not shown.

Schematic diagram	Pages 4-17 to 4-66
Printed wiring board	Pages 4-67 to 4-74
Electrical parts list	Pages 6-23 to 6-44

For MECHANISM ADJUSTMENTS, refer to the "DV MECHANICAL ADJUSTMENT MANUAL Ⅵ J MECHANISM " (9-929-807-11).

DCR-TRV6/TRV11/TRV20 : NTSC model
DCR-TRV6E/TRV11E/TRV20E : PAL model

• Table showing differences is shown on page 4.

SPECIFICATIONS

Video camera recorder

System

Video recording system
2 rotary heads
Helical scanning system

Audio recording system
Rotary heads, PCM system
Quantization: 12 bits (Fs 32 kHz, stereo 1, stereo 2), 16 bits (Fs 48 kHz, stereo)

Video signal
DCR-TRV6/TRV11/TRV20:
NTSC color, EIA standards
DCR-TRV6E/TRV11E/TRV20E:
PAL colour, CCIR standards

Usable cassette
Mini DV cassette with the Mini DV mark printed

Tape speed
SP: Approx. 18.81 mm/s
LP: Approx. 12.56 mm/s

Recording/playback time (using cassette DVM60)
SP: 1 hour
LP: 1.5 hours

Fastforward/rewind time (using cassette DVM60)
Approx. 2 min. and 30 seconds

Viewfinder
Electric viewfinder (colour)

Image device
1/4 type CCD (Charge Coupled Device)
DCR-TRV6/TRV6E/TRV11/TRV11E:
Approx. 680,000 pixels
(Effective: Approx. 340,000 pixels)
DCR-TRV20/TRV20E:
Approx. 1,070,000 pixels
(Effective (still): 1,000,000 pixels)
(Effective (moving): 690,000 pixels)

Lens
Carl Zeiss
Combined power zoom lens
Filter diameter
DCR-TRV6/TRV6E/TRV11/TRV11E:
30 mm (1 3/16 in.)
DCR-TRV20/TRV20E:
37 mm (1 1/2 in.)
DCR-TRV6E: AEP, UK/
TRV11E: AEP, UK/
TRV20E: AEP, UK:
10× (Optical), 40× (Digital)
DCR-TRV6E: EXCEPT AEP, UK/
TRV11E: EXCEPT AEP, UK/
TRV20E: EXCEPT AEP, UK:
10× (Optical), 120× (Digital)

Focal length
DCR-TRV6/TRV6E/TRV11/TRV11E:
3.3 - 33 mm (5/32 - 1 5/16 in.)
DCR-TRV20/TRV20E:
4.2 - 42 mm (3/16 - 1 11/16 in.)
When converted to a 35 mm still camera
DCR-TRV6/TRV6E/TRV11/TRV11E:
Camera/Memory mode:
42 - 420 mm (1 11/16 - 16 5/8 in.)
DCR-TRV20/TRV20E:
Camera mode:
48 - 480 mm (1 15/16 - 19 in.)
Memory mode:
40 - 400 mm (1 5/8 - 15 3/4 in.)

Colour temperature
Auto, HOLD (Hold), ☼Indoor (3200K), ☀Outdoor (5800K)

Minimum illumination
DCR-TRV6/TRV6E/TRV11/TRV11E:
5 lux (F 1.7)
DCR-TRV20/TRV20E: 7 lux (F 1.8)
0 lux (in the NightShot mode)*

* Objects unable to be seen due to the dark can be shot with infrared lighting.

Input/Output connectors

S video output (DCR-TRV6E: AEP, UK/ TRV11E: AEP, UK)

S video input/output (DCR-TRV6/ TRV6E :EXCEPT AEP, UK/TRV11/ TRV11E: EXCEPT AEP, UK/TRV20/ TRV20E)
4-pin mini DIN
Luminance signal: 1 Vp-p, 75 ohms, unbalanced
Chrominance signal: 0.3 Vp-p, 75 ohms, unbalanced

— Continued on next page —

Mini DV Digital Video Cassette

DIGITAL VIDEO CAMERA RECORDER

SONY®

Audio/Video output (DCR-TRV6E: AEP, UK/ TRV11E: AEP, UK)
Audio/Video input/output (DCR-TRV6/TRV6E: EXCEPT AEP, UK/ TRV11/TRV11E: EXCEPT AEP, UK/ TRV20/TRV20E)
AV MINI JACK, 1 Vp-p, 75 ohms, unbalanced, sync negative
327 mV, (at output impedance more than 47 kilohms)
Output impedance with less than 2.2 kilohms/Stereo minijack (ø 3.5mm)
Input impedance more than 47 kilohms
i DV output (DCR-TRV6E: AEP, UK/ TRV11E: AEP, UK)
i DV input/output (DCR-TRV6/ TRV6E :EXCEPT AEP, UK/TRV11/ TRV11E: EXCEPT AEP, UK/TRV20/ TRV20E)
4-pin connector
Headphone jack
Stereo minijack (ø 3.5 mm)
Ⓛ (LANC) jack (DCR-TRV6E)
DIGITAL I/O/Ⓛ (LANC) jack (DCR-TRV6/TRV11/TRV11E/TRV20/TRV20E)
Mini-minijack (ø 2.5 mm)
MIC jack
Minijack, 0.388 mV low impedance with 2.5 to 3.0 V DC, output impedance 6.8 kilohms (ø 3.5 mm)
Stereo type

LCD screen

Picture
DCR-TRV6/TRV6E:
2.5 inches measured diagonally
50.3 × 37.4 mm (2 × 1 1/2 in.)
DCR-TRV11/TRV11E/TRV20/ TRV20E:
3.5 inches measured diagonally
72.4 × 50.4 mm (2 7/8 × 2 in.)
Total dot number
DCR-TRV6/TRV6E:
200,640 (880 × 228)
DCR-TRV11/TRV11E:
184,800 (840 × 220)
DCR-TRV20/TRV20E:
246,400 (1120 × 220)

General

Power requirements
7.2 V (battery pack)
8.4 V (AC power adaptor)
Average power consumption (when using the battery pack)
During camera recording using LCD
DCR-TRV6/TRV6E: 3.4 W
DCR-TRV11/TRV11E: 3.5 W
DCR-TRV20/TRV20E: 4.4 W
Viewfinder
DCR-TRV6/TRV6E: 2.5 W
DCR-TRV11/TRV11E: 2.6 W
DCR-TRV20/TRV20E: 3.6 W
Operating temperature
0 °C to 40 °C (32 °F to 104 °F)
Storage temperature
–20 °C to +60 °C (–4 °F to +140 °F)
Dimensions (Approx.)
DCR-TRV6/TRV6E/TRV11/ TRV11E:
71 × 93 × 163 mm
(2.8 × 3.7 × 6.4 in.) (w/h/d)
DCR-TRV20/TRV20E:
71 × 93 × 170 mm
(2.8 × 3.7 × 6.7 in.) (w/h/d)
Mass (approx.)
DCR-TRV6/TRV6E:
580 g (1 lb 4 oz)
DCR-TRV11/TRV11E:
620 g (1 lb 5 oz)
DCR-TRV20/TRV20E:
680 g (1 lb 7 oz)
main unit only
DCR-TRV6/TRV6E:
680 g (1 lb 7 oz)
DCR-TRV11/TRV11E:
720 g (1 lb 9 oz)
DCR-TRV20/TRV20E:
780 g (1lb 11 oz)
including the battery pack, NP-FM50, cassette DVM60, lens cap and shoulder strap
Supplied accessories
See page 3.

AC power adaptor

Power requirements
100 - 240 V AC, 50/60 Hz
Power consumption
23 W
Output voltage
DC OUT: 8.4 V, 1.5 A in the operating mode
Operating temperature
0 °C to 40 °C (32 °F to 104 °F)
Storage temperature
–20 °C to +60 °C (–4 °F to +140 °F)
Dimensions (approx.)
125 × 39 × 62 mm
(5 × 1 9/16 × 2 1/2 in.) (w/h/d)
excluding projecting parts
Mass (approx.)
280 g (9.8 oz)
excluding mains lead
Cord length (approx.)
Mains lead: 2 m (6.6 feet)
Connecting cord: 1.6 m (5.2 feet)

Battery pack

Output voltage
DC 7.2 V
Capacity
8.5 Wh (1180m Ah)
Dimensions (approx.)
38.2 × 20.5 × 55.6 mm
(1 9/16 × 13/16 × 2 1/4 in.)
(w/h/d)
Mass (approx.)
76 g (2.7 oz)
Type
Lithium ion

"Memory Stick" (DCR-TRV11/TRV11E/ TRV20/TRV20E only)

Memory
Flash memory
4MB: MSA-4A
Operating voltage
2.7-3.6V
Power consumption
Approx. 45mA in the operating mode
Approx. 130µA in the standby mode
Dimensions (approx.)
50 × 2.8 × 21.5 mm
(2 × 1/8 × 7/8 in.) (w/h/d)
Mass (approx.)
4 g (0.14 oz)

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

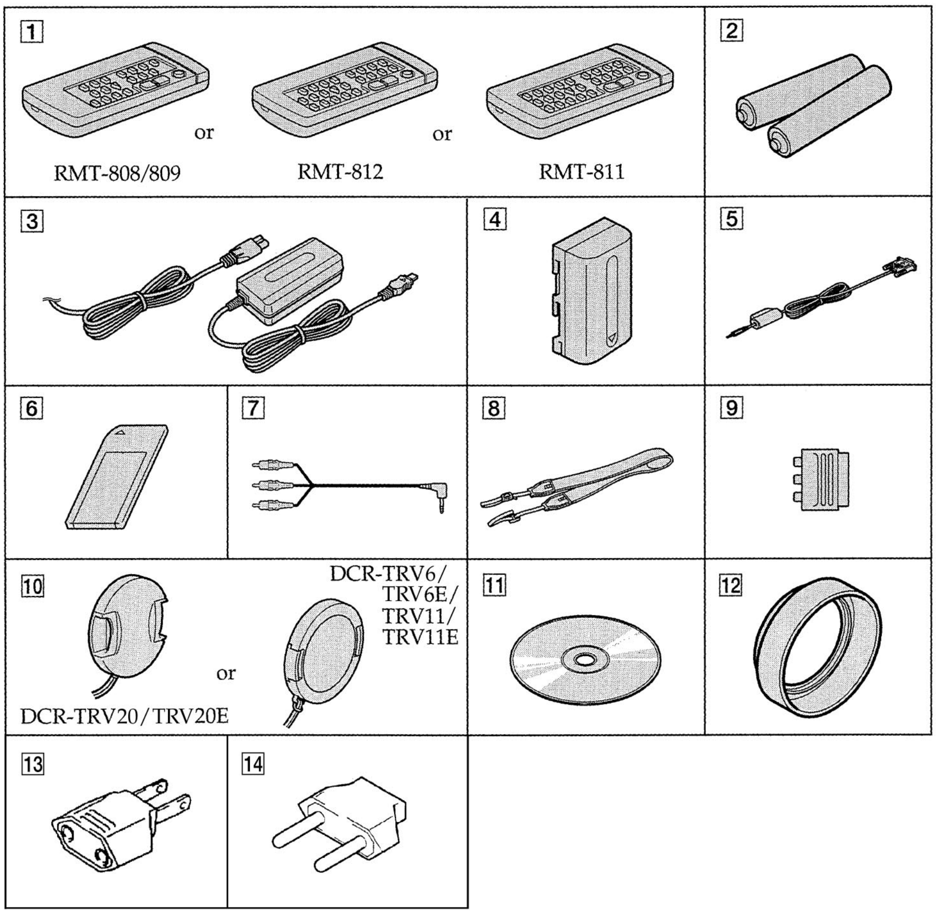
After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270˚C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

• Table showing differences is shown on page 4.

• SUPPLIED ACCESSORIES

Check that the following accessories are supplied with your camcorder.



1 **Wireless Remote Commander** (1)
RMT-808: DCR-TRV6/TRV6E: AUS, E, JE, CN
RMT-809: DCR-TRV6E: AEP, UK
RMT-812: DCR-TRV11E: AEP, UK
RMT-811: DCR-TRV11/TRV11E: AUS, E, HK, JE, CN/TRV20/ TRV20E

2 **R6 (size AA) battery for Remote Commander** (2)

3 **AC-L10A/L10B/L10C AC power adaptor** (1), **Mains lead** (1)

4 **NP-FM50 battery pack** (1)

5 **PC serial cable** (1)
DCR-TRV11/TRV11E/TRV20/TRV20E only

6 **“Memory Stick”** (1)
DCR-TRV11/TRV11E/TRV20/TRV20E only

7 **A/V connecting cable** (1)

8 **Shoulder strap** (1)

9 **21-pin adaptor** (1)
DCR-TRV6E: AEP, UK/TRV11E: AEP, UK/TRV20E: AEP, UK

10 **Lens cap** (1)

11 **Application software: PictureGear 4.1Lite (CD ROM)** (1)
DCR-TRV11/TRV11E/TRV20/TRV20E only

12 **Lens hood** (1)
DCR-TRV20/TRV20E only

13 **2-pin conversion adaptor** (1)
DCR-TRV6E: E, HK/TRV6E: E, HK/TRV11: E, HK/ TRV11E: E, HK/TRV20: E, HK/TRV20E: E, HK

14 **2-pin conversion adaptor** (1)
DCR-TRV6: JE/TRV6E: JE/TRV11: JE/TRV11E: JE/ TRV20: JE/TRV20E: JE

- Abbreviation
  CND : Canadian model
  CN : Chinese model
  HK : Hong Kong model
  KR : Korea model
  AUS : Australian model
  JE : Tourist model

Table for difference of function

Model	DCR-TRV6	DCR-TRV6E	DCR-TRV6E	DCR-TRV11	DCR-TRV11E	DCR-TRV11E	DCR-TRV20	DCR-TRV20E	DCR-TRV20E	Remark
Destination	US,CND, E, HK, JE, KR	AEP, UK	E, AUS, HK, CN, JE	US,CND, E, HK, JE, KR	AEP, UK	E, AUS, HK, CN, JE	US,CND, E,HK,JE, KR	AEP, UK	E, AUS, HK, CN, JE	
Color system	NTSC	PAL	PAL	NTSC	PAL	PAL	NTSC	PAL	PAL	NTSC: X101 is 66MHz (DCR-TRV20) X701 is 36MHz (DCR-TRV6/TRV11) PAL: X101 is 54MHz (DCR-TRV20E) X701 is 36MHz (DCR-TRV6E/TRV11E)
Remote commander	RMT-808	RMT-809	RMT-808	RMT-811	RMT-812	RMT-811	RMT-811	RMT-811	RMT-811	
Lens	10×	10×	10×	10×	10×	10×	10×	10×	10×	
Digital zoom	120×	40×	120×	120×	40×	120×	120×	40×	120×	
CCD imager	960H	960H	960H	960H	960H	960H	1152H	1152H	1152H	1152H : with VC-240 board. 960H : with VC-241 board.
MEMORY STICK slot				○	○	○	○	○	○	○: with IC1406 to IC1412 of VC-240 board or with IC1402 to IC1407 of VC-241 board.
DIGITAL I/O (RS232C)				○	○	○	○	○	○	
LINE IN	○		○	○		○	○	○	○	○: with REC button and IC903 of VC-240/241 board.
LCD (size)	2.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	
LCD (pixel)	200k	200k	200k	184k	184k	184k	246k	246k	246k	
LCD type	TYPE ST	TYPE ST	TYPE ST	TYPE SH	TYPE SH	TYPE SH	TYPE CA	TYPE ST	TYPE ST	TYPE CA, TYPE SH: with PD-123 board. TYPE ST: with PD-124 board.
EVF (pixel)	113k	113k	113k	113k	113k	113k	180k	180k	180k	
CD-252 board							○	○	○	○: with 1152H CCD imager.
FP-219 flexible	○	○	○	○	○	○				○: with 960H CCD imager.
VC board	VC-241						VC-240			VC-240: with 1152H CCD imager. VC-241: with 960H CCD imager.
CK board	CK-94			CK-92				CK-94		CK-92: with LCD TYPE CA or TYPE SH. CK-94: with LCD TYPE ST.
PD board	PD-124			PD-123				PD-124		PD-123: with LCD TYPE CA or TYPE SH. PD-124: with LCD TYPE ST.

- Abbreviation

CND : Canadian model
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Parts list of the VC-240/241 board are not shown.
Pages from 6-23 to 6-44 are not shown.

* Optical axis frame and color reproduction frame are shown on page 247 to 249.

SERVICE NOTE

1. POWER SUPPLY DURING REPAIRS

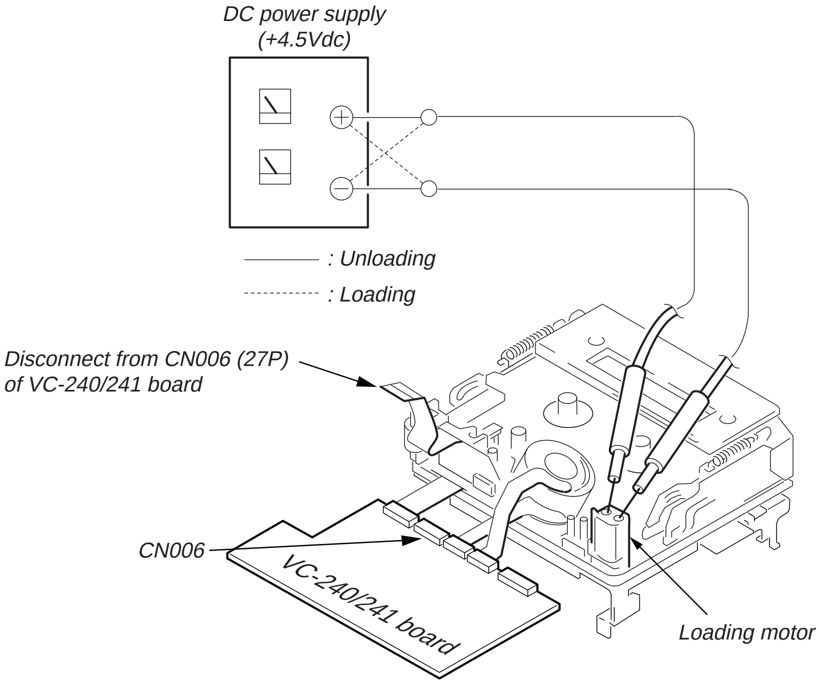
In this unit, about 10 seconds after power is supplied to the battery terminal using the regulated power supply (8.4V), the power is shut off so that the unit cannot operate.
These following two methods are available to prevent this. Take note of which to use during repairs.

Method 1.
Connect the servicing remote commander RM-95 (J-6082-053-B) to the LANC jack, and set the commander switch to the “ADJ” side.

Method 2.
Use the DC IN terminal. (Use the AC power adaptor (AC-L10, AC-VQ800 etc.))

2. TO TAKE OUT A CASSETTE WHEN NOT EJECT (FORCE EJECT)

① Refer to 2-4. to remove the top cabinet assembly.
② Refer to 2-4. to remove the front panel block assembly.
③ Refer to 2-4. to remove the cabinet (R) block assembly.
④ Refer to 2-6. to remove the battery panel section.
⑤ Refer to 2-6. to remove the VC heat sink. (DCR-TRV20/TRV20E model only)
⑥ Refer to 2-6. to remove DD-137 board.
⑦ Open the VC-240/241 board.
⑧ Refer to 2-9. to remove the two screws (M1.7 × 2.5) with which the MD frame assembly is fixed on the CS frame assembly.
⑨ Refer to 2-9. to remove the mechanism deck and VC-240/241 board.
⑩ Remove the CN006 (27P 0.3 mm) of the VC-240/241 board.
⑪ Supply +4.5V from the DC power supply to the loading motor and unload with a pressing the cassette compartment.



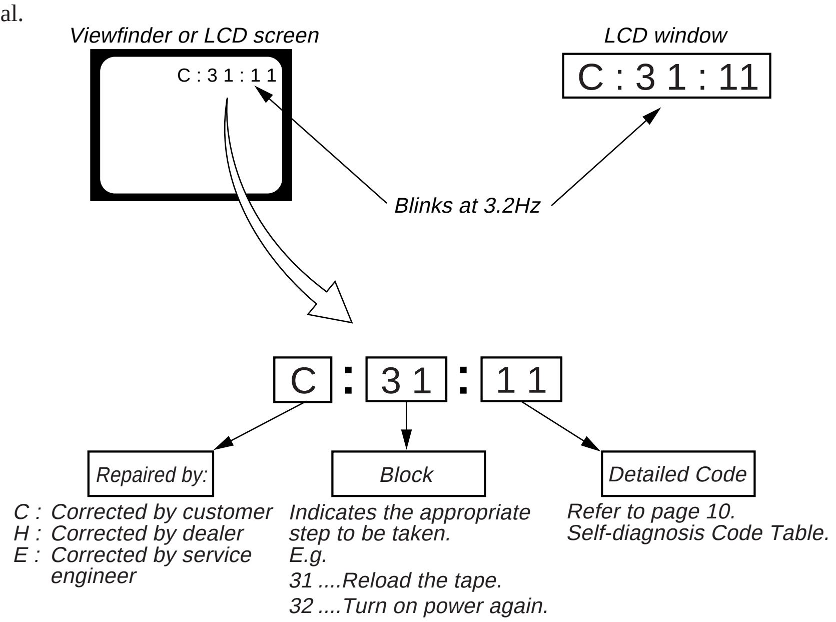
SELF-DIAGNOSIS FUNCTION

1. SELF-DIAGNOSIS FUNCTION

When problems occur while the unit is operating, the self-diagnosis function starts working, and displays on the viewfinder, LCD screen or LCD window what to do. This function consists of two display; self-diagnosis display and service mode display.
Details of the self-diagnosis functions are provided in the Instruction manual.

2. SELF-DIAGNOSIS DISPLAY

When problems occur while the unit is operating, the counter of the viewfinder, LCD screen or LCD window consists of an alphabet and 4-digit numbers, which blinks at 3.2 Hz. This 5-character display indicates the “repaired by:”, “block” in which the problem occurred, and “detailed code” of the problem.

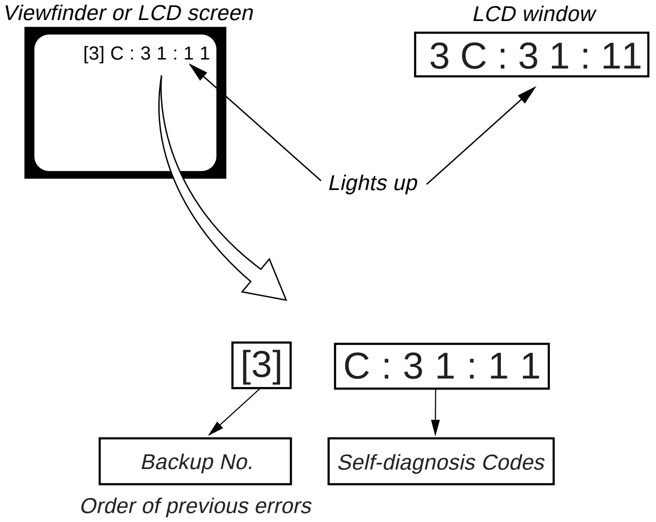

Viewfinder or LCD screen
C : 3 1 : 1 1
LCD window
C : 3 1 : 11
Blinks at 3.2Hz
C : 3 1 : 1 1
Repaired by:
C : Corrected by customer
H : Corrected by dealer
E : Corrected by service engineer
Block
Indicates the appropriate step to be taken.
E.g.
31 ....Reload the tape.
32 ....Turn on power again.
Detailed Code
Refer to page 10.
Self-diagnosis Code Table.

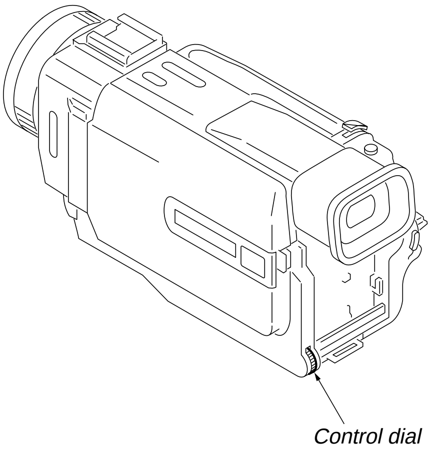
3. SERVICE MODE DISPLAY

The service mode display shows up to six self-diagnosis codes shown in the past.

3-1. Display Method

While pressing the “STOP” key, set the switch from OFF to “VCR or PLAYER”, and continue pressing the “STOP” key for 5 seconds continuously. The service mode will be displayed, and the counter will show the backup No. and the 5-character self-diagnosis codes.


Viewfinder or LCD screen
[3] C : 3 1 : 1 1
LCD window
3 C : 3 1 : 11
Lights up
[3]
C : 3 1 : 1 1
Backup No.
Self-diagnosis Codes
Order of previous errors


Control dial

3-2. Switching of Backup No.

By rotating the control dial, past self-diagnosis codes will be shown in order. The backup No. in the [] indicates the order in which the problem occurred. (If the number of problems which occurred is less than 6, only the number of problems which occurred will be shown.)

[1] : Occurred first time
[2] : Occurred second time
[3] : Occurred third time
[4] : Occurred fourth time
[5] : Occurred fifth time
[6] : Occurred the last time

3-3. End of Display

Turning OFF the power supply will end the service mode display.

Note: The “self-diagnosis display” data will be backed up by the coin-type lithium battery of CK-92/94 board BT3201. When this coin-type lithium battery is removed, the “self-diagnosis display” data will be lost by initialization.

4. SELF-DIAGNOSIS CODE TABLE

Self-diagnosis Code			Symptom/State	Correction
Repaired by:	Block Function	Detailed Code		
C	0 4	0 0	Non-standard battery is used.	Use the info LITHIUM battery.
C	2 1	0 0	Condensation.	Remove the cassette, and insert it again after one hour.
C	2 2	0 0	Video head is dirty.	Clean with the optional cleaning cassette.
C	3 1	1 0	LOAD direction. Loading does not complete within specified time	Load the tape again, and perform operations from the beginning.
C	3 1	1 1	UNLOAD direction. Loading does not complete within specified time	Load the tape again, and perform operations from the beginning.
C	3 1	2 0	T reel side tape slacking when unloading.	Load the tape again, and perform operations from the beginning.
C	3 1	2 1	Winding S reel fault when counting the rest of tape.	Load the tape again, and perform operations from the beginning.
C	3 1	2 2	T reel fault.	Load the tape again, and perform operations from the beginning.
C	3 1	2 3	S reel fault.	Load the tape again, and perform operations from the beginning.
C	3 1	2 4	T reel fault.	Load the tape again, and perform operations from the beginning.
C	3 1	3 0	FG fault when starting capstan.	Load the tape again, and perform operations from the beginning.
C	3 1	4 0	FG fault when starting drum.	Load the tape again, and perform operations from the beginning.
C	3 1	4 2	FG fault during normal drum operations.	Load the tape again, and perform operations from the beginning.
C	3 1	1 0	LOAD direction loading motor time-out.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 1	1 1	UNLOAD direction loading motor time-out.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 0	T reel side tape slacking when unloading.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 1	Winding S reel fault when counting the rest of tape.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 2	T reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 3	S reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 4	T reel fault.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	3 0	FG fault when starting capstan.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	4 0	FG fault when starting drum	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	4 2	FG fault during normal drum operations	Remove the battery or power cable, connect, and perform operations from the beginning.
E	6 1	0 0	Difficult to adjust focus (Cannot initialize focus.)	Inspect the lens block focus reset sensor (Pin ⑧,⑨ of CD-252 board or Pin ⑱ of CN3000 of FP-219 flexible board) when focusing is performed when the control dial is rotated in the focus manual mode, and the focus motor drive circuit (IC201 of VC-240/241 board) when the focusing is not performed.
E	6 1	1 0	Zoom operations fault (Cannot initialize zoom lens.)	Inspect the lens block zoom reset sensor (Pin ⑲,⑳ of CD-252 board or Pin ⑨ of CN3000 of FP-219 flexible board) when zooming is performed when the zoom lens is operated and the zoom motor drive circuit (IC201 of VC-240/241 board) when zooming is not performed.
E	6 2	0 0	Steadyshot function does not work well. (With pitch angular velocity sensor output stopped.)	Inspect pitch angular velocity sensor (SE3051 of JK-188 board) peripheral circuits.
E	6 2	0 1	Steadyshot function does not work well. (With yaw angular velocity sensor output stopped.)	Inspect yaw angular velocity sensor (SE3052 of JK-188 board) peripheral circuits.

SECTION 1
GENERAL

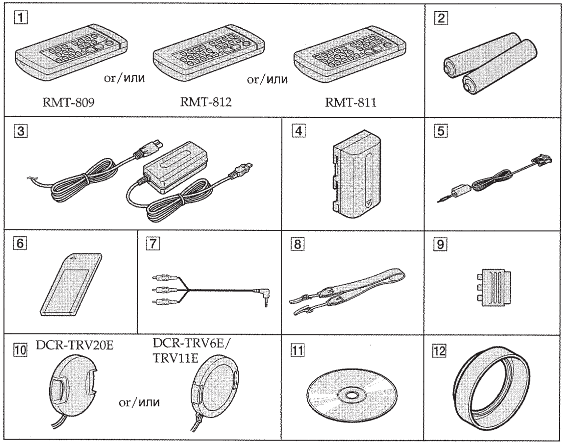
This section is extracted from instruction manual.
(DCR-TRV6E/TRV11E/TRV20E model)

Checking supplied accessories

Make sure that the following accessories are supplied with your camcorder.

Проверка прилагаемых принадлежностей

Убедитесь, что следующие принадлежности прилагаются к Вашей видеокамере



1 **Wireless Remote Commander** (1) (p. 212)
RMT-809: DCR-TRV6E
RMT-812: DCR-TRV11E
RMT-811: DCR-TRV20E

2 **R6 (size AA) battery for Remote Commander** (2) (p. 213)

3 **AC-L10A/L10B/L10C AC power adaptor** (1), **Mains lead** (1) (p. 14)

4 **NP-FM50 battery pack** (1) (p. 13, 14)

5 **PC serial cable** (1) (p. 157)
DCR-TRV11E/TRV20E only

6 **"Memory Stick"** (1) (p. 131)
DCR-TRV11E/TRV20E only

7 **A/V connecting cable** (1) (p. 41, 80)

8 **Shoulder strap** (1) (p. 208)

9 **21-pin adaptor** (1) (p. 42)

10 **Lens cap** (1) (p. 21)

11 **Application software: PictureGear 4.1Lite (CD ROM)** (1) (p. 157)
DCR-TRV11E/TRV20E only

12 **Lens hood** (1) (p. 26)
DCR-TRV20E only .

1 **Беспроводный пульт дистанционного управления** (1) (стр. 212)
RMT-809: DCR-TRV6E
RMT-812: DCR-TRV11E
RMT-811: DCR-TRV20E

2 **Батарейка R6 (размера AA) для пульта дистанционного управления** (2) (стр. 213)

3 **Сетевой адаптер переменного тока AC-L10A/L10B/L10C AC** (1), **провод электропитания** (1) (стр. 14)

4 **Батарейный блок NP-FM50** (1) (стр. 13, 14)

5 **кабель последовательного интерфейса для ПК** (1) (стр. 157)
Только для модели DCR-TRV11E/TRV20E

6 **"Memory Stick"** (1) (стр. 131)
Только для модели DCR-TRV11E/TRV20E

7 **Соединительный кабель аудио/видео** (1) (стр. 41, 80)

8 **Плечевой ремень** (1) (стр. 208)

9 **21-штырьковый адаптер** (1) (стр. 42)

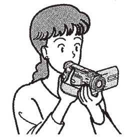
10 **Крышка объектива** (1) (стр. 21)

11 **Прикладное программное обеспечение: PictureGear 4.1Lite (CD ROM)** (1) (стр. 157)
Только для модели DCR-TRV11E/TRV20E

12 **Бленда объектива** (1) (стр. 26)
только для модели DCR-TRV20E

English

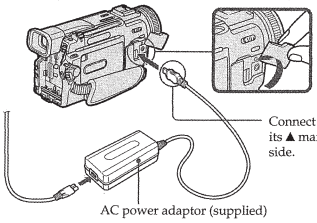
Quick Start Guide



This chapter introduces you to the basic features of your camcorder. See the page in parentheses "( )" for more information.

1 Connecting the mains lead (p. 19)

Use the battery pack when using your camcorder outdoors (p. 13).



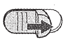
Open the DC IN jack cover.

Connect the plug with its ▲ mark facing lens side.

AC power adaptor (supplied)

2 Inserting a cassette (p. 20)

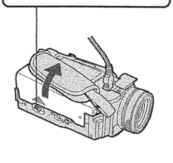
❶ Slide OPEN/EJECT in the direction of the arrow and open the lid.

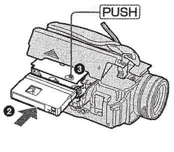


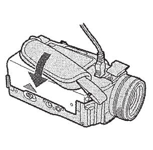
❷ Push the middle portion of the back of the cassette to insert.

❸ Close the cassette compartment by pressing the PUSH mark on the cassette compartment.

❹ After the cassette compartment going down completely, close the lid until it clicks.



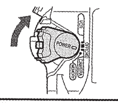


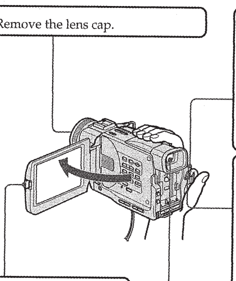


3 Recording a picture (p. 21)

❶ Remove the lens cap.

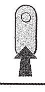
❷ Set the POWER switch to CAMERA while pressing the small green button.





❸ To open the LCD panel, press OPEN. The picture appears on the LCD screen.

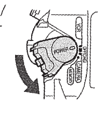
❹ Press START/STOP. Your camcorder starts recording. To stop recording, press START/STOP again.

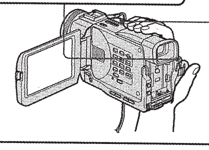


Viewfinder
When the LCD panel is closed, use the viewfinder placing your eye against its eyecup.

4 Monitoring the playback picture on the LCD screen (p. 36)

❶ Set the POWER switch to VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) while pressing the small green button.





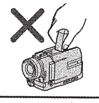
❷ Press ◄◄ to rewind the tape.

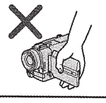
REW◄◄

❸ Press ► to start playback.

PLAY ▷

NOTE
Do not pick up your camcorder by holding the viewfinder or the LCD panel.





— Getting started —

Using this manual

The instructions in this manual are for the three models listed in the table below. Before you start reading this manual and operating your camcorder, check the model number by looking at the bottom of your camcorder. The DCR-TRV20E is the model used for illustration purposes. Otherwise, the model name is indicated in the illustrations. Any differences in operation are clearly indicated in the text, for example, "DCR-TRV20E only".
As you read through this manual, buttons and settings on your camcorder are shown in capital letters.
e.g. Set the POWER switch to CAMERA.
When you carry out an operation, you can hear a beep sound to indicate that the operation is being carried out.

— Подготовка к эксплуатации —

Использование данного руководства

Инструкции в данном руководстве предназначены для трех моделей, перечисленных в таблице ниже. Перед тем, как прочесть данное руководство и начать эксплуатацию Вашей видеокамеры, проверьте номер модели на нижней стороне видеокамеры. В качестве иллюстрации используется модель DCR-TRV20E. В других случаях номер модели указан на рисунках. Какие-либо расхождения в эксплуатации четко указаны в тексте, например, "только для модели DCR-TRV20E".
При чтении данного руководства учитывайте, что кнопки и установки на видеокамере показаны заглавными буквами.
Пример. Установите переключатель POWER в положение CAMERA.
При выполнении операции на видеокамере Вы сможете услышать зуммерный сигнал, подтверждающий выполнение операции.

Types of differences/Типы различий

DCR-	TRV6E	TRV11E	TRV20E
MEMORY mark* (on the POWER switch) Метка MEMORY* (на переключателе POWER)	—	●	●
DV IN/OUT	●**	●**	●
AUDIO/VIDEO	●**	●**	●

● Provided
— Not provided

* The model with MEMORY marked on the POWER switch is provided with memory functions. See page 131 for details.
**Output only.

● Имеется
— Отсутствует

* В моделях с меткой MEMORY на переключателе POWER имеются функции памяти. Подробные сведения приведены на стр. 131.
**Только выход.

Using this manual

Note on Cassette Memory

Your camcorder is based on the DV format. You can only use mini DV cassettes with your camcorder. We recommend you to use a tape with cassette memory CIЧ.

The functions which depend on whether the tape has the cassette memory or not are:

- End search (p. 34, 40)
- Searching a recording by date – date search (p. 75)
- Photo search (p. 77)

The functions you can operate only with the cassette memory are:

- Searching the boundaries of recorded tape by title – title search (p. 73)
- Superimposing a title (p. 108)
- Making your own titles (p. 112)
- Labelling a cassette (p. 114)

For details, see page 171.

CM only You see this mark in the introduction of the features that operate only with cassette memory.
Tapes with cassette memory are marked by CIЧ (Cassette Memory).

Использование данного руководства

Примечание по кассетной памяти

Ваша видеокамера работает в формате DV. Вы можете использовать для видеокамеры только кассеты мини DV. Рекомендуется использовать ленту с кассетной памятью CIЧ.

Ниже приведены функции, которые зависят от того, имеется ли на ленте кассетная память или нет:

- Поиск конца (стр. 34, 40)
- Поиск записи по дате – Поиск даты (стр. 75)
- Фотопоиск (стр. 77)

Функции, которыми Вы можете управлять только с помощью кассетной памяти, следующие:

- Поиск границ записи на ленте по титру – Поиск титра (стр. 73)
- Наложение титра (стр. 108)
- Создание Ваших собственных титров (стр. 112)
- Маркировка кассеты (стр. 114)

Подробные сведения приведены на стр. 171.

CM only Вы можете увидеть эту метку при описании функций, которыми можно управлять только с помощью кассетной памяти.
Ленты с кассетной памятью маркируются с помощью метки CIЧ (кассетная память).

Using this manual

Note on TV colour systems

TV colour systems differ from country to country. To view your recordings on a TV, you need a PAL system-based TV.

Copyright precautions

Television programmes, films, video tapes, and other materials may be copyrighted. Unauthorized recording of such materials may be contrary to the provision of the copyright laws.

Precautions on camcorder care

- **The LCD screen and the viewfinder are manufactured using high-precision technology. However, there may be some tiny black points and/or bright points (red, blue, green, or white) that constantly appear on the LCD screen and in the viewfinder. These points occur normally in the manufacturing process and do not affect the recorded picture in any way. Effective ratio of pixels and/or screen are 99.99% or more.**
- Do not let your camcorder get wet. Keep your camcorder away from rain and sea water. Letting your camcorder get wet may cause your camcorder to malfunction. Sometimes this malfunction cannot be repaired **[a]**.
- Never leave your camcorder exposed to temperatures above 60°C (140°F), such as in a car parked in the sun or under direct sunlight **[b]**.
- Do not place your camcorder so as to point the viewfinder or the LCD screen toward the sun. The inside of the viewfinder or LCD screen may be damaged **[c]**.

Использование данного руководства

Примечание по системам цветного телевидения

Системы цветного телевидения отличаются в зависимости от страны. Для просмотра Ваших записей на экране телевизора Вам необходимо использовать телевизор, основанный на системе PAL.

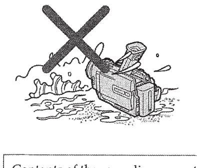
Предостережение об авторском праве

Телевизионные программы, кинофильмы, видеоленты и другие материалы могут быть защищены авторским правом.
Нелицензированная запись таких материалов может противоречить положениям закона об авторском праве.

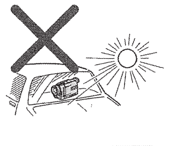
Меры предосторожности при уходе за видеокамерой

- **Экран ЖКД и видоискатель изготовлены с помощью высокопрецизионной технологии. Однако на экране ЖКД и в цветном видоискателе могут появляться черные или яркие точки (красные, синие, зеленые или белые). Появление этих точек вполне нормально для процесса съемки и никоим образом не влияет на записываемое изображение. Свыше 99,99% экрана предназначено для эффективного использования.**
- Не допускайте, чтобы видеокамера становилась влажной. Предохраняйте видеокамеру от дождя и морской воды. Если Вы намочите видеокамеру, то это может привести к неисправности аппарата, которая не всегда может быть устранена **[a]**.
- Никогда не оставляйте видеокамеру в месте с температурой выше 60°C (140°F), например, в автомобиле, оставленном на солнце или под прямым солнечным светом **[b]**.
- Не располагайте свою видеокамеру таким образом, чтобы видоискатель или экран ЖКД были направлены на солнце. Иначе может быть повреждено внутреннее устройство видоискателя или экрана ЖКД **[c]**.

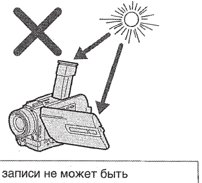
[a]



[b]



[c]



Contents of the recording cannot be compensated if recording or playback is not made due to a malfunction of the camcorder, video tape, etc.

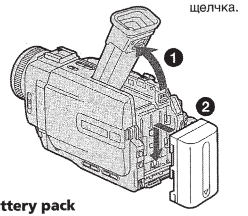
Содержание записи не может быть компенсировано в случае, если запись или воспроизведение не выполнены из-за неисправности видеокамеры, видеоленты и т.п.

Step 1 Preparing the power supply

Installing the battery pack

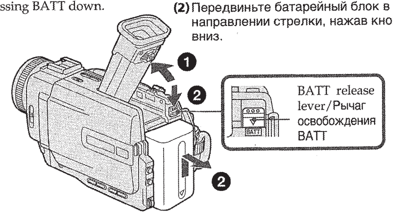
Install the battery pack to use your camcorder outdoors.

(1) Lift up the viewfinder.
(2) Slide the battery pack down until it clicks.



To remove the battery pack

(1) Lift up the viewfinder.
(2) Slide the battery pack out in the direction of the arrow while pressing BATT down.



After installing the battery pack
Do not carry your camcorder by holding the battery pack. If you do so, the battery pack may slide off your camcorder unintentionally, damaging your camcorder.

If you use the large capacity battery pack
If you install the NP-FM70/FM90/FM91 battery pack on your camcorder, extend its viewfinder. Take care not to pinch your finger when lifting the viewfinder up and down.

Пункт 1 Подготовка источника питания

Установка батарейного блока

Установите батарейный блок для того, чтобы использовать видеокамеру вне помещения.

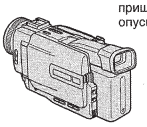
(1) Поднимите видоискатель.
(2) Передвиньте батарейный блок вниз до щелчка.

Для снятия батарейного блока

(1) Поднимите видоискатель.
(2) Передвиньте батарейный блок в направлении стрелки, нажав кнопку BATT вниз.

После установки батарейного блока
Не переносите свою видеокамеру за батарейный блок. В этом случае батарейный блок может непроизвольно соскользнуть с Вашей видеокамеры и повредить ее.

При использовании батарейного блока большой емкости
При установке батарейного блока NP-FM70/FM90/FM91 в Вашу видеокамеру поднимите видоискатель. Будьте осторожны, чтобы не прищемить пальцы при подниманиии и опускании видоискателя.



Step 1 Preparing the power supply

Charging the battery pack

Use the battery pack after charging it for your camcorder.
Your camcorder operates only with the "InfoLITHIUM" battery pack (M series).

(1) Open the DC IN jack cover, pulling the cover out a little and rotating. Connect the AC power adaptor supplied with your camcorder to the DC IN jack on your camcorder with the plug's ▲ mark facing the lens side.
(2) Connect the mains lead to the AC power adaptor.
(3) Connect the mains lead to the mains.
(4) Set the POWER switch to OFF (CHG). Charging begins. The remaining battery time is indicated in minutes on the display window.

When the remaining battery indicator changes to ▰, **normal charge** is completed. To fully charge the battery **(full charge)**, leave the battery pack attached for about one hour after normal charge is completed until FULL appears in the display window. Fully charging the battery allows you to use the battery longer than usual.

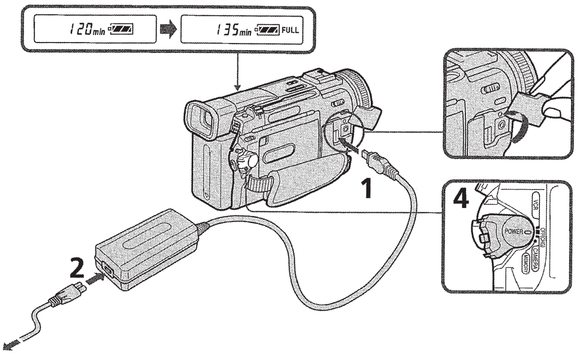
Пункт 1 Подготовка источника питания

Зарядка батарейного блока

Используйте батарейный блок для Вашей видеокамеры после его зарядки.
Ваша видеокамера работает только с батарейным блоком "InfoLITHIUM" (серии M).

(1) Откройте крышку гнезда DC IN, потянув ее на себя и немного повернув. Подсоедините сетевой адаптер переменного тока, прилагаемый к видеокамере, к гнезду DC IN Вашей видеокамеры так, чтобы метка ▲ на штекере была направлена в сторону объектива.
(2) Подсоедините провод электропитания к сетевому адаптеру переменного тока.
(3) Подсоедините провод электропитания к сетевой розетке.
(4) Установите переключатель POWER в положение OFF (CHG). Начнется зарядка. В окошке дисплея будет отображаться время оставшегося заряда в минутах.

Если индикатор оставшегося заряда изменится на ▰, это значит, что **нормальная зарядка** завершена. Для полной зарядки батарейного блока (**полная зарядка**) оставьте батарейный блок подключенным приблизительно на один час после завершения нормальной зарядки до тех пор, пока в окошке дисплея не появится индикация FULL. Полная зарядка батарейного блока позволяет Вам использовать батарейный блок дольше, чем обычно.



Step 1 Preparing the power supply

After charging the battery pack

Disconnect the AC power adaptor from the DC IN jack on your camcorder.

Notes
- Prevent metallic objects from coming into contact with the metal parts of the DC plug of the AC power adaptor. This may cause a short-circuit, damaging the AC power adaptor.
- Keep the battery pack dry.
- When the battery pack is not to be used for a long time, charge the battery pack once fully and then use it until it fully discharges again. Keep the battery pack in a cool place.

Remaining battery time indicator
The remaining battery time you record with the viewfinder is displayed.
The remaining battery time indicator in the display window roughly indicates the recording time with the viewfinder.

Until your camcorder calculates the actual remaining battery time
"– – – min" appears in the display window.

While charging the battery pack, no indicator appears or the indicator flashes in the display window in the following cases:
- The battery pack is not installed correctly.
- The AC power adaptor is disconnected.
- Something is wrong with the battery pack.

Battery pack
The battery pack is charged a little before it leaves the factory.

Пункт 1 Подготовка источника питания

После зарядки батарейного блока

Отсоедините сетевой адаптер переменного тока от гнезда DC IN на Вашей видеокамере.

Примечания
- Не допускайте контакта металлических предметов с металлическими частями штекера постоянного тока сетевого адаптера. Это может привести к короткому замыканию и повреждению Вашей видеокамеры.
- Держите батарейный блок в сухом состоянии.
- Когда батарейный блок не используется в течение длительного промежутка времени, полностью зарядите его, а затем используйте, пока он не разрядится окончательно. Храните батарейный блок в прохладном месте.

Индикатор оставшегося заряда батарейного блока
Отображается оставшееся время работы батареи при съемке с видоискателем.
Индикатор времени оставшегося заряда батарейного блока в окошке дисплея приблизительно указывает время записи с использованием видоискателя.

До тех пор, пока Ваша видеокамера не определит действительное время оставшегося заряда батарейного блока
В окошке дисплея будет отображаться индикация "– – – min".

Во время зарядки батарейного блока в окошке дисплея не будет отображаться индикатор или он будет мигать в следующих случаях:
- Батарейный блок установлен неправильно.
- Отсоединен сетевой адаптер переменного тока.
- Неисправность батарейного блока.

Батарейный блок
На предприятии-изготовителе батарейный блок перед отправкой частично заряжается.

Step 1 Preparing the power supply

Пункт 1 Подготовка источника питания

Charging time/Время зарядки

Battery pack/ Батарейный блок	Full charge (Normal charge)/ Полная зарядка (нормальная зарядка)
NP-FM50 (supplied)/ (входит в комплект)	150 (90)
NP-FM70	240 (180)
NP-FM90	330 (270)
NP-FM91	360 (300)

Approximate number of minutes to charge an empty battery pack

Приблизительное время в минутах при использовании полностью заряженного батарейного блока

Recording time/Время записи

DCR-TRV6E

Battery pack/ Батарейный блок	Recording with the viewfinder/ Запись с помощью видоискателя		Recording with the LCD screen/ Запись с помощью экрана ЖКД	
	Continuous*/ Непрерывный режим*	Typical**/ Типичная**	Continuous*/ Непрерывный режим*	Typical**/ Типичная**
NP-FM50 (supplied)/ (входит в комплект)	200 (180)	110 (95)	145 (130)	75 (70)
NP-FM70	415 (375)	225 (205)	305 (270)	165 (145)
NP-FM90	630 (565)	345 (310)	460 (410)	250 (225)
NP-FM91	725 (655)	395 (360)	535 (480)	290 (260)

DCR-TRV11E

Battery pack/ Батарейный блок	Recording with the viewfinder/ Запись с помощью видоискателя		Recording with the LCD screen/ Запись с помощью экрана ЖКД	
	Continuous*/ Непрерывный режим*	Typical**/ Типичная**	Continuous*/ Непрерывный режим*	Typical**/ Типичная**
NP-FM50(supplied)/ (входит в комплект)	195 (175)	105 (95)	140 (125)	75 (65)
NP-FM70	400 (360)	220 (195)	295 (265)	160 (145)
NP-FM90	600 (540)	330 (295)	450 (400)	245 (220)
NP-FM91	695 (625)	380 (340)	520 (465)	285 (255)

DCR-TRV20E

Battery pack/ Батарейный блок	Recording with the viewfinder/ Запись с помощью видоискателя		Recording with the LCD screen/ Запись с помощью экрана ЖКД	
	Continuous*/ Непрерывный режим*	Typical**/ Типичная**	Continuous*/ Непрерывный режим*	Typical**/ Типичная**
NP-FM50(supplied)/ (входит в комплект)	135 (120)	80 (70)	110 (100)	65 (60)
NP-FM70	285 (255)	170 (150)	230 (210)	135 (125)
NP-FM90	435 (390)	260 (230)	355 (315)	210 (185)
NP-FM91	505 (455)	300 (270)	410 (370)	245 (220)

Step 1 Preparing the power supply

Approximate number of minutes when you use a fully charged battery

Numbers in parentheses "( )" indicate the time using a normally charged battery.
* Approximate continuous recording time at 25°C (77°F). The battery life will be shorter if you use your camcorder in a cold environment.
** Approximate number of minutes when recording while you repeat recording start/stop, zooming and turning the power on/off. The actual battery life may be shorter.

Пункт 1 Подготовка источника питания

Приблизительное время в минутах при использовании полностью заряженного батарейного блока

Цифры в скобках "( )" указывают время при использовании батарейного блока с нормальной зарядкой.
* Приблизительное время непрерывной записи при температуре 25°C (77°F). При использовании видеокамеры в холодных условиях срок службы батарейного блока сокращается.
** Приблизительное время в минутах при записи с неоднократным пуском/остановкой записи, трансфокацией и включением/выключением питания. Фактический срок службы батарейного блока может быть короче.

Playing time/Время воспроизведения

DCR-TRV6E

Battery pack/ Батарейный блок	Playing time on LCD screen/ Время воспроизведения на экране ЖКД	Playing time with LCD closed/ Время воспроизведения при закрытом ЖКД
NP-FM50 (supplied)/ (входит в комплект)	145 (130)	200 (180)
NP-FM70	305 (270)	415 (375)
NP-FM90	460 (410)	630 (565)
NP-FM91	535 (480)	725 (655)

DCR-TRV11E

Battery pack/ Батарейный блок	Playing time on LCD screen/ Время воспроизведения на экране ЖКД	Playing time with LCD closed/ Время воспроизведения при закрытом ЖКД
NP-FM50 (supplied)/ (входит в комплект)	140 (125)	195 (175)
NP-FM70	295 (265)	400 (360)
NP-FM90	450 (400)	600 (540)
NP-FM91	520 (465)	695 (625)

Step 1 Preparing the power supply

Пункт 1 Подготовка источника питания

DCR-TRV20E

Battery pack/ Батарейный блок	Playing time on LCD screen/ Время воспроизведения на экране ЖКД	Playing time with LCD closed/ Время воспроизведения при закрытом ЖКД
NP-FM50 (supplied)/ (входит в комплект)	125 (110)	160 (145)
NP-FM70	265 (235)	335 (300)
NP-FM90	400 (360)	505 (455)
NP-FM91	465 (415)	585 (525)

Approximate number of minutes when you use a fully charged battery

Numbers in parentheses "( )" indicate the time using a normally charged battery. The battery life will be shorter if you use your camcorder in a cold environment.

What is "InfoLITHIUM"?
The "InfoLITHIUM" is a lithium ion battery pack which can exchange data such as battery consumption with compatible electronic equipment. This unit is compatible with the "InfoLITHIUM" battery pack (M series). Your camcorder operates only with the "InfoLITHIUM" battery. "InfoLITHIUM" M series battery packs have the InfoLITHIUM™ M SERIES mark. "InfoLITHIUM" is a trademark of Sony Corporation.

Приблизительное время в минутах при использовании полностью заряженного батарейного блока

Цифры в скобках "( )" указывают время при использовании батарейного блока с нормальной зарядкой. При использовании видеокамеры в холодных условиях срок службы батарейного блока сокращается.

Что такое "InfoLITHIUM"?
"InfoLITHIUM" представляет собой литиево-ионный батарейный блок, который может обмениваться данными, такими как потребление энергии батарейного блока, с совместимой видеоаппаратурой. Это устройство совместимо с батарейным блоком "InfoLITHIUM" (серии M). Ваша видеокамера работает только с батарейным блоком "InfoLITHIUM". На батарейных блоках "InfoLITHIUM" серии M имеется метка InfoLITHIUM™ M SERIES.
"InfoLITHIUM" является торговой маркой корпорации Sony.

Step 1 Preparing the power supply

Connecting to the mains

When you use your camcorder for a long time, we recommend that you power it from the mains using the AC power adaptor.

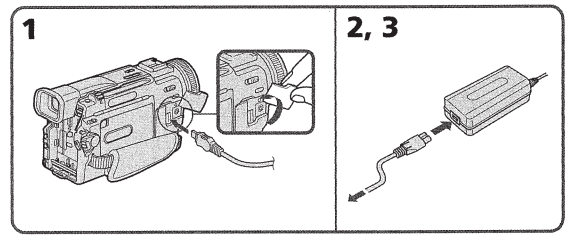
(1) Open the DC IN jack cover, pulling the cover out a little and rotating it. Connect the AC power adaptor supplied with your camcorder to the DC IN jack on your camcorder with the plug's ▲ mark facing the lens side.
(2) Connect the mains lead to the AC power adaptor.
(3) Connect the mains lead to the mains.

Пункт 1 Подготовка источника питания

Подсоединение к сетевой розетке

Если Вы собираетесь использовать видеокамеру длительное время, рекомендуется использовать питание от электрической сети с помощью сетевого адаптера переменного тока.

(1) Откройте крышку гнезда DC IN, потянув ее на себя и немного повернув. Подсоедините сетевой адаптер переменного тока, прилагаемый к видеокамере, к гнезду DC IN Вашей видеокамеры так, чтобы метка ▲ на штекере была направлена в сторону объектива.
(2) Подсоедините провод электропитания к сетевому адаптеру переменного тока.
(3) Подсоедините провод электропитания к сетевой розетке.



PRECAUTION
The set is not disconnected from the AC power source (the mains) as long as it is connected to the mains, even if the set itself has been turned off.

Notes
- The AC power adaptor can supply power even if the battery pack is attached to your camcorder.
- The DC IN jack has "source priority". This means that the battery pack cannot supply any power if the mains lead is connected to the DC IN jack, even when the mains lead is not plugged into the mains.

Using a car battery
Use Sony DC Adaptor/Charger (not supplied).

ПРЕДОСТЕРЕЖЕНИЕ
Аппарат не отключается от источника переменного тока до тех пор, пока он подсоединен к электрической сети, даже если сам аппарат выключен.

Примечания
- Питание от сетевого адаптера переменного тока может подаваться даже в том случае, если батарейный блок прикреплен к Вашей видеокамере.
- Гнездо DC IN обладает "приоритетом источника". Это означает, что питание от батарейного блока не подается, пока провод электропитания подсоединен к гнезду DC IN, даже если провод электропитания не включен в сетевую розетку.

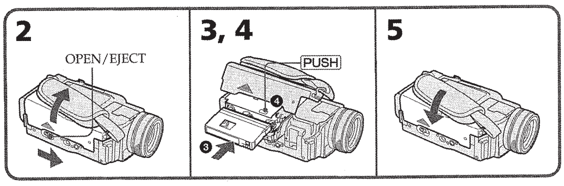
Использование автомобильного аккумулятора
Используйте адаптер/зарядное устройство постоянного тока фирмы Sony (не входит в комплект).

Step 2 Inserting a cassette

(1) Install the power source.
(2) Slide OPEN/EJECT in the direction of the arrow and open the lid. The cassette compartment automatically lifts up and opens.
(3) Push the middle portion of the back of the cassette to insert. Insert the cassette in a straight line deeply into the cassette compartment with the window facing out.
(4) Close the cassette compartment by pressing the PUSH mark on the cassette compartment. The cassette compartment automatically goes down.
(5) After the cassette compartment going down completely, close the lid until it clicks.

Пункт 2 Установка кассеты

(1) Установите источник питания.
(2) Передвиньте переключатель OPEN/EJECT в направлении стрелки и откройте крышку. Кассетный отсек автоматически поднимется вверх и откроется.
(3) Чтобы вставить кассету, нажмите на нее по центру с задней стороны. Вставьте кассету по прямой в кассетный отсек до упора, чтобы окошко было обращено наружу.
(4) Закройте кассетный отсек, нажав метку PUSH на кассетном отсеке. Кассетный отсек автоматически опустится вниз.
(5) После того, как кассетный отсек полностью опустится вниз, закройте крышку до щелчка.



To eject a cassette
Follow the procedure above and in step 3, take out the cassette.

Notes
- Do not press the cassette compartment down. Doing so may cause malfunction.
- The cassette compartment may not be closed when you press any part of the lid other than the PUSH mark.

When you use mini DV cassette with cassette memory
Read the instruction about cassette memory to use this function properly (p. 171).

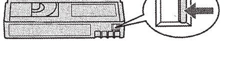
To prevent accidental erasure
Slide the write-protect tab on the cassette to expose the red mark.

Для извлечения кассеты
Выполните указанную выше процедуру и выньте кассету в пункте 3.

Примечания
- Не нажимайте кассетный отсек вниз. Это может привести к неисправности.
- Кассетный отсек может не закрыться, если Вы нажмете на какую-либо другую часть на крышке, а не на метку PUSH.

При использовании кассеты мини DV с кассетной памятью
Прочтите инструкцию о кассетной памяти для правильного использования этой функции (стр. 171).

Для предотвращения случайного стирания
Передвиньте лепесток защиты от записи на кассете так, чтобы появилась красная метка.



— Recording – Basics —

Recording a picture

Your camcorder automatically focuses for you.

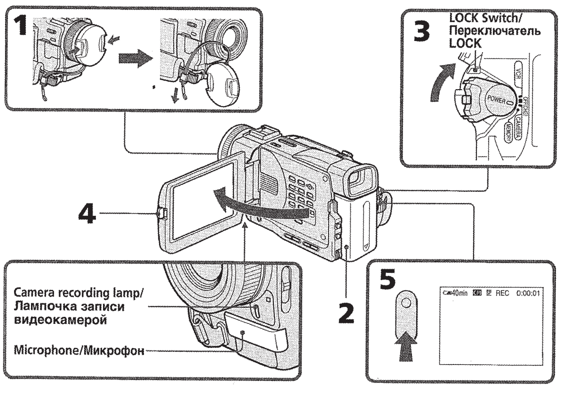
(1) Remove the lens cap by pressing both knobs on its sides and attatch the lens cap to the grip strap.
(2) Install the power source and insert a cassette. See "Step 1" and "Step 2" for more information (p. 13 to p. 20).
(3) Set the POWER switch to CAMERA while pressing the small green button. Your camcorder is set to the standby mode.
(4) To open the LCD panel, press OPEN. The viewfinder automatically turns off.
(5) Press START/STOP. Your camcorder starts recording. The "REC" indicator appears. The camera recording lamp located on the front of your camcorder lights up. To stop recording, press START/STOP again.

— Запись - Основные положения —

Запись изображения

Ваша видеокамера выполняет фокусировку автоматически.

(1) Снимите крышку объектива, нажав обе кнопки на ее кромке, и прикрепите крышку объектива к ремню для захвата.
(2) Установите источник питания и вставьте кассету. Подробные сведения приведены в "Пункте 1" и "Пункте 2" (стр. с 13 по 20).
(3) Нажав маленькую зеленую кнопку, установите переключатель POWER в положение CAMERA. Ваша видеокамера будет установлена в режим ожидания.
(4) Нажмите OPEN, чтобы открыть панель ЖКД. Видоискатель выключится автоматически.
(5) Нажмите кнопку START/STOP. Ваша видеокамера начнет запись. Появится индикатор "REC". Загорится также лампочка записи, расположенная на передней панели видеокамеры. Для остановки записи нажмите кнопку START/STOP еще раз.



Note
Fasten the grip strap firmly.

Note on recording mode
Your camcorder records and plays back in the SP (standard play) mode and in the LP (long play) mode. Select SP or LP in the menu settings. In the LP mode, you can record 1.5 times as long as in the SP mode.
When you record a tape in the LP mode on your camcorder, we recommend playing the tape on your camcorder.

Note on the LOCK switch (DCR-TRV11E/ TRV20E only)
When you slide LOCK to the right, the POWER switch can no longer be set to MEMORY accidentally. LOCK is set to the left before your camcorder leaves the factory.

To enable smooth transition
Transition between the last scene you recorded and the next scene is smooth as long as you do not eject the cassette even if you turn off your camcorder.
However, check the following:
- Do not mix recordings in the SP mode and ones in the LP mode on one tape.
- When you change the battery pack, set the POWER switch to OFF (CHG).

When you use a tape with cassette memory, however, you can make the transition smooth even after ejecting the cassette if you use the END SEARCH function (p. 34).

If you leave your camcorder in the standby mode for five minutes while the cassette is inserted
Your camcorder automatically turns off. This is to save battery power and to prevent battery and tape wear. To resume the standby mode, set the POWER switch to OFF (CHG), and to CAMERA again.

Примечание
Надежно прикрепите ремень для захвата.

Примечание по режиму записи
Ваша видеокамера выполняет запись и воспроизведение в режиме SP (стандартное воспроизведение) и в режиме LP (долгоиграющее воспроизведение). Выберите режим SP или LP в установках меню. В режиме LP Вы можете выполнять запись в 1,5 раза дольше по времени, чем в режиме SP.
Если запись ленты выполнялась на Вашей видеокамере в режиме LP, ее рекомендуется воспроизводить на этой видеокамере.

Примечание по переключателю LOCK (только для модели DCR-TRV11E/TRV20E)
Если передвинуть переключатель LOCK вправо, переключатель POWER уже невозможно случайно установить в положение MEMORY. Переключатель LOCK установлен влево на предприятии-изготовителе перед отправкой видеокамеры в торговую сеть.

Для обеспечения плавного перехода
Переход между последним записанным эпизодом и следующим эпизодом будет плавным до тех пор, пока не извлечете кассету, даже при выключении видеокамеры.
Однако необходимо отметить следующее:
- Не следует на одной ленте делать записи в режиме SP и LP.
- При замене батарейного блока установите переключатель POWER в положение OFF (CHG).

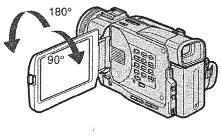
Однако при использовании ленты с кассетной памятью можно создавать плавный переход, даже после извлечения кассеты, если используется функция END SEARCH (стр. 34).

Если Вы оставите Вашу видеокамеру в режиме ожидания на пять минут при вставленной кассете
Ваша видеокамера выключится автоматически. Это предотвращает расход заряда батарейного блока и износ батарейного блока и ленты. Для возврата в режим ожидания установите переключатель POWER в положение OFF (CHG), а затем снова в положение CAMERA.

When you record in the SP and LP modes on one tape or you record some scenes in the LP mode
The playback picture may be distorted or the time code may not be written properly between scenes.

Adjusting the LCD screen

The LCD panel moves about 90 degrees to the viewfinder side and about 180 degrees to the lens side.
If you turn the LCD panel over so that it faces the other way, the ☺ indicator appears in the viewfinder and on the LCD screen (**Mirror mode**).



When closing the LCD panel, set it vertically until it clicks, and swing it into the camcorder body.

Note
When using the LCD screen except in the mirror mode, the viewfinder automatically turns off.

When you use the LCD screen outdoors in direct sunlight
The LCD screen may be difficult to see. If this happens, we recommend that you use the viewfinder.

Если Вы выполняете запись в режимах SP и LP на одну ленту или же записываете несколько эпизодов в режиме LP
Воспроизводимое изображение может быть искажено или код времени неправильно записан между эпизодами.

Регулировка экрана ЖКД

Панель ЖКД может перемещаться примерно на 90 градусов в сторону видоискателя и примерно на 180 градусов в сторону объектива.
Если Вы повернете панель ЖКД так, что будет направлена в другую сторону, в видоискателе и на экране ЖКД появится индикатор ☺ (**Зеркальный режим**).

При закрытии панели ЖКД установите ее вертикально до щелчка, а затем сложите ее, совместив с корпусом видеокамеры.

Примечание
При использовании экрана ЖКД видоискатель автоматически выключается, кроме зеркального режима.

Если Вы используете экран ЖКД вне помещения под прямым солнечным светом
Возможно будет трудно разглядеть что-либо на экране ЖКД. В этом случае рекомендуется использовать видоискатель.

Picture in the mirror mode
The picture on the LCD is a mirror-image. However, the picture will be normal when recorded.

During recording in the mirror mode
ZERO SET MEMORY on the Remote Commander does not work.

Indicators in the mirror mode
The STBY indicator appears as ❚❚● and REC as ●. Some of the other indicators appear mirror-reversed and others are not displayed.

Adjusting the brightness of the LCD screen

To adjust the brightness of the LCD screen, press either of the two buttons on LCD BRIGHT.

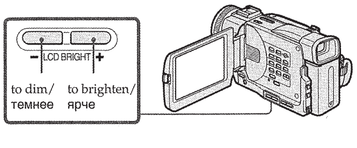
Изображение в зеркальном режиме
Изображение на экране ЖКД будет отображаться зеркально. Однако запись изображения будет нормальной.

Во время записи в зеркальном режиме
Кнопка ZERO SET MEMORY на пульте дистанционного управления не работает.

Индикаторы в зеркальном режиме
Индикатор STBY отображается в виде ❚❚●, а индикатор REC в виде ●. Некоторые другие индикаторы появятся в зеркально отображенном виде, а некоторые из них не будут отображаться совсем.

Регулировка яркости экрана ЖКД

Для регулировки яркости экрана ЖКД нажмите одну из кнопок на LCD BRIGHT.



LCD screen backlight
You can change the brightness of the backlight. Select LCD B.L. in the menu settings.(p.116)

Even if you adjust the LCD screen backlight or brightness of the LCD screen
The recorded picture will not be affected.

After recording

(1) Set the POWER switch to OFF (CHG).
(2) Close the LCD panel.
(3) Eject the cassette.

Задняя подсветка экрана ЖКД
Вы можете изменять яркость задней подсветки. Выберите команду LCD B.L. в установках меню. (стр. 116)

Даже в случае регулировки задней подсветки экрана ЖКД или яркости экрана ЖКД
Это не повлияет на записанное изображение.

После записи

(1) Установите переключатель POWER в положение OFF (CHG).
(2) Закройте панель ЖКД.
(3) Извлеките кассету.

Adjusting the viewfinder

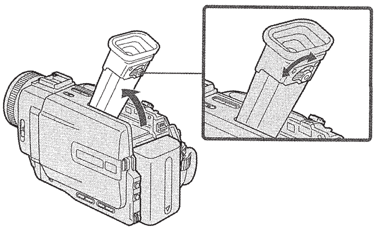
If you record pictures with the LCD panel closed, check the picture with the viewfinder. Adjust the viewfinder lens to your eyesight so that the indicators in the viewfinder come into sharp focus.

Lift up the viewfinder and move the viewfinder lens adjustment lever.

Регулировка видоискателя

Если Вы будете записывать изображения при закрытой панели ЖКД, контролируйте изображение с помощью видоискателя. Отрегулируйте объектив видоискателя в соответствии со своим зрением, чтобы индикаторы в видоискателе были четко сфокусированы.

Поднимите видоискатель и рычаг регулировки объектива видоискателя.



Viewfinder backlight
You can change the brightness of the backlight. Select VF B.L. in the menu settings. (p.116)

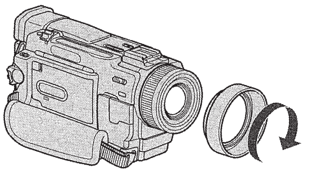
Задняя подсветка видоискателя
Вы можете изменять яркость задней подсветки. Выберите VF B.L. в установках меню. (стр. 116)

Attaching the supplied lens hood (DCR-TRV20E only)

To record fine pictures under strong light, we recommend attaching the lens hood. Also the lens cap can be attached even with the lens hood on.

Подсоединение прилагаемой бленды объектива (только для модели DCR-TRV20E)

Для записи деталей изображения при ярком освещении рекомендуется устанавливать на объектив бленду. Крышку объектива можно использовать даже при подсоединенной бленде.



Notes

- When you use the Remote Commander and the lens hood, the Remote Commander may not function properly because the lens hood blocks the infrared rays from the Remote Commander. In such case, remove the lens hood from your camcorder.
- You cannot attach filters or other objects onto the lens hood.

When you use the filter (not supplied)
The shadow of the lens hood may appear in the corners of LCD screen or viewfinder.

Примечания

- При использовании пульта дистанционного управления и бленды объектива пульт может работать некорректно, так как бленда препятствует прохождению инфракрасных лучей от пульта. В этом случае отсоедините бленду от видеокамеры.
- К бленде нельзя подсоединять фильтры и другие приспособления.

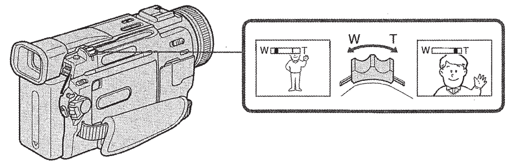
Когда Вы используете фильтр (не прилагается)
Тень от бленды может появиться в уголках экрана ЖКД или видоискателя.

Using the zoom feature

Move the power zoom lever a little for a slower zoom. Move it further for a faster zoom.
Using the zoom function sparingly results in better-looking recordings.
"T" side: for telephoto (subject appears closer)
"W" side: for wide-angle (subject appears farther away)

Использование функции трансфокации

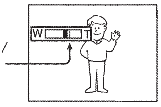
Слегка передвиньте рычаг привода трансфокатора для медленной трансфокации. Передвиньте его дальше для ускоренной трансфокации.
Умеренное использование функции наезда обеспечивает наилучшие результаты.
Сторона "T": для телефото (объект приближается)
Сторона "W": для широкоугольного вида (объект удаляется)



To use zoom greater than 10×
Zoom greater than 10× is performed digitally, if you set D ZOOM to 20× or 40× in the menu settings. The digital zoom function is set to OFF at the factory. (p. 116)

Значение трансфокации более 10×
Трансфокация более 10× выполняется цифровым методом при установке значения 20× или 40× в параметре D ZOOM в установках меню. На предприятии-изготовителе функция цифровой трансфокации установлена в положение OFF (стр. 116)

The right side of the bar shows the digital zooming zone.
The digital zooming zone appears when you set D ZOOM to 20× or 40×./
Правая сторона полосы на экране показывает зону цифровой трансфокации.
Зона цифровой трансфокации появляется, когда в параметре D ZOOM устанавливается значение 20× или 40×.



When you shoot close to a subject
If you cannot get a sharp focus, move the power zoom lever to the "W" side until the focus is sharp. You can shoot a subject that is at least about 80 cm (about 2 feet 5/8 inch) away from the lens surface in the telephoto position, or about 1 cm (about 1/2 inch) away in the wide-angle position.

Notes on digital zoom

- Digital zoom starts to function when zoom exceeds 10×.
- The picture quality deteriorates as you move the power zoom lever toward the "T" side.
- You cannot use the digital zoom when the POWER switch is set to MEMORY (DCR-TRV11E/TRV20E only).

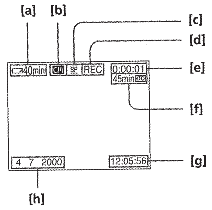
При съемке объекта с близкого положения
Если Вы не можете получить четкой фокусировки, передвиньте рычаг привода трансфокатора в сторону "W" до получения четкой фокусировки. Вы можете выполнять съемку объекта в положении телефото, который отстоит по крайней мере на расстоянии 80 см от поверхности объектива или около 1 см в положении широкоугольного вида.

Примечания по цифровой трансфокации

- Цифровая трансфокация начинает срабатывать, если значение трансфокации превышает10×.
- Качество изображения ухудшается по мере перемещения рычажка привода трансфокатора к стороне "T".
- Цифровая трансфокация не будет работать, если переключатель POWER установлен в положение MEMORY.
(только для модели DCR-TRV11E/TRV20E).

Indicators displayed in the recording mode

The indicators are not recorded on tapes.



[a] Remaining battery time indicator
[b] Cassette memory indicator
This appears when using a tape with cassette memory.
[c] Recording mode indicator
[d] STBY/REC indicator
[e] Time code/Tape counter
[f] Remaining tape indicator
[g] Time indicator
The time is displayed about five seconds after the power is turned on.
[h] Date indicator
The date is displayed about five seconds after the power is turned on.

Time code
The time code indicates the recording or playback time, "0:00:00" (hours : minutes : seconds) in CAMERA mode and "0:00:00:00" (hours : minutes : seconds : frames) in VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) mode. You cannot rewrite only the time code.

Remaining tape indicator
The indicator may not be displayed accurately depending on the tape.

Recording date and time
The recording date and time are not displayed while recording. However, they are recorded automatically onto the tape. To display the recording date and time, press DATE CODE during playback.

Индикаторы, отображаемые в режиме записи

Индикаторы не записываются на ленту.

[a] Индикатор оставшегося заряда батарейного блока
[b] Индикатор кассетной памяти
Этот индикатор появляется при использовании кассетной памяти.
[c] Индикатор режима записи
[d] Индикатор STBY/REC
[e] Код времени/Счетчик ленты
[f] Индикатор оставшейся ленты
[g] Индикатор времени
Время отображается в течении приблизительно 5 секунд после включения питания.
[h] Индикатор даты
Дата отображается в течении приблизительно 5 секунд после включения питания.

Код времени
Код времени указывает время записи или воспроизведения, "0:00:00" (часы : минуты : секунды) в режиме CAMERA и "0:00:00:00" (часы : минуты : секунды : кадры) в режиме VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E). Вы не можете перезаписать только код времени.

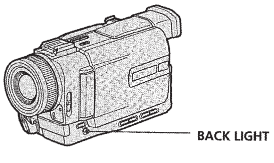
Индикатор оставшейся ленты
Индикатор может точно не отображаться в зависимости от ленты.

Дата и время записи
При выполнении записи дата и время не отображаются. Однако они автоматически записываются на ленту. Для отображения даты и времени записи во время воспроизведения нажмите DATE CODE.

Shooting backlit subjects (BACK LIGHT)

When you shoot a subject with the light source behind the subject or a subject with a light background, use the backlight function.

In the standby, recording or memory mode, press BACK LIGHT.
The ▧ indicator appears in the viewfinder or on the LCD screen.
To cancel, press BACK LIGHT again.



If you press EXPOSURE when shooting backlit subjects
The backlight function will be cancelled.

Съемка объектов с задней подсветкой (BACK LIGHT)

Если Вы выполняете съемку объекта с источником света позади него или же объекта со светлым фоном, используйте функцию задней подсветки.

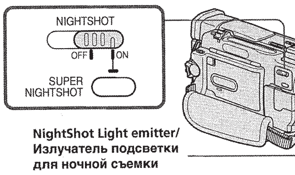
В режиме ожидания, записи или памяти нажмите кнопку BACK LIGHT.
На экране ЖКД или в видоискателе появится индикатор ▧.
Для отмены нажмите кнопку BACK LIGHT еще раз.

Если нажать кнопку EXPOSURE при выполнении съемки объектов с задней подсветкой
Функция задней подсветки будет отменена.

Shooting in the dark (NightShot/Super NightShot)

The NightShot function enables you to shoot a subject in a dark place. For example, you can satisfactorily record the environment of nocturnal animals for observation when you use this function.

In the standby, recording or memory mode, slide NIGHTSHOT to ON.◉ and "NIGHTSHOT" indicators flash on the LCD screen or in the viewfinder. To cancel the NightShot function, slide NIGHTSHOT to OFF.



Using Super NightShot

The Super NightShot mode makes subjects more than 16 times brighter than those recorded in the NightShot mode.

(1) In the standby or recording mode, slide NIGHTSHOT to ON. ◉ indicator appears on the LCD screen or in the viewfinder.
(2) Press SUPER NIGHTSHOT. The ◉ indicator and "SUPER NIGHTSHOT" appear.
To cancel the Super NightShot mode, press SUPER NIGHTSHOT.

Using the NightShot Light

The picture will be clearer with the NightShot Light on. To enable NightShot Light, set N.S.LIGHT to ON in the menu settings (p. 116).

Съемка в темноте (Ночная съемка/Улучшенной ночной съемки)

Функция ночной съемки позволяет Вам выполнять съемку объектов в темных местах. Например, Вы можете с успехом выполнять съемку ночных животных для наблюдения при использовании данной функции.

В режиме ожидания, записи или памяти передвиньте переключатель NIGHTSHOT в положение ON. ◉ Индикаторы и "NIGHTSHOT" начнут мигать на экране ЖКД или в видоискателе. Для отмены функции ночной съемки передвиньте переключатель NIGHTSHOT в положении OFF.

Использование режима улучшенной ночной съемки

Режим улучшенной ночной съемки позволяет сделать объекты более чем в шестнадцать раз ярче, чем в случае, если Вы будете выполнять съемку в обычном режиме ночной съемки.

(1) В режиме ожидания или записи передвиньте переключатель NIGHTSHOT в положение ON. ◉ Индикатор появится на экране ЖКД или в видоискателе.
(2) Нажмите кнопку SUPER NIGHTSHOT. Появится индикатор ◉ и надпись "SUPER NIGHTSHOT".
Для выхода из режима улучшенной ночной съемки нажмите кнопку SUPER NIGHTSHOT.

Использование подсветки для ночной съемки

Изображение станет ярче, если включить функцию ночной подсветки. Для включения функции ночной подсветки установите переключатель N.S.LIGHT в положение ON в установках меню (стр. 116).

Notes
- Do not use the NightShot function in bright places (ex. outdoors in the daytime). This may cause your camcorder to malfunction.
- When you keep NIGHTSHOT set to ON in normal recording, the picture may be recorded in incorrect or unnatural colours.
- If focusing is difficult with the autofocus mode when using the NightShot function, focus manually.

While using the NightShot function, you cannot use the following functions:
– Exposure
– PROGRAM AE
– White balance

While using the Super NightShot Function
The shutter speed is automatically adjusted depending on the brightness. At that time, the moving picture may be slow down.

While using the Super NightShot function, you cannot use the following functions:
– Exposure
– PROGRAM AE
– Fader
– Digital effect
– Memory mode (DCR-TRV11E/TRV20E only)

NightShot Light
NightShot Light rays are infrared and so are invisible. The maximum shooting distance using the NightShot Light is about three m (10 feet).

Примечания
- Не используйте функцию ночной съемки в хорошо освещенных местах (например, на улице в дневное время). Это может привести к повреждению Вашей видеокамеры.
- При удержании установки NIGHTSHOT в положении ON при нормальной записи изображение может быть записано в неправильных или неестественных цветах.
- Если трудно выполнить фокусировку в автоматическом режиме при использовании функции ночной съемки, выполните ее вручную.

При использовании функции ночной съемки Вы не можете использовать следующие функции:
– Экспозиция
– PROGRAM AE
– Баланс белого

При использовании функции улучшенной ночной съемки
Скорость затвора автоматически изменяется в зависимости от освещенности. В это время скорость подвижного изображения может быть замедлена.

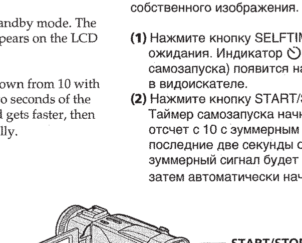
При использовании функции улучшенной ночной съемки невозможно использовать следующие функции:
– Экспозиция
– PROGRAM AE
– Фейдер
– Цифровой эффект
– Режим памяти (только для модели DCR-TRV11E/TRV20E)

Подсветка для ночной съемки
Лучи подсветки для ночной съемки являются инфракрасными и поэтому невидимыми. Максимальное расстояние для съемки при использовании подсветки для ночной съемки равно примерно 3 м.

Self-timer recording

You can make a recording with the self-timer. This mode is useful when you want to record yourself.

(1) Press SELFTIMER in the standby mode. The ⏲ (self-timer) indicator appears on the LCD screen or in the viewfinder.
(2) Press START/STOP.
Self-timer starts counting down from 10 with a beep sound. In the last two seconds of the countdown, the beep sound gets faster, then recording starts automatically.



To stop the self-timer during recording

Press START/STOP.
Use the Remote Commander for convenience.

To record still pictures using the self-timer

Press PHOTO in step 2 (p. 47).

To record still pictures on "Memory Stick"s

Press SELFTIMER, then press PHOTO in the memory mode (p. 143).

To cancel self-timer recording

Press SELFTIMER so that the ⏲ indicator disappears from on the LCD screen or in the viewfinder while your camcorder is in the standby mode.

Note
The self-timer recording mode is automatically cancelled when:
- Self-timer recording is finished.
- The POWER switch is set to OFF (CHG) or VCR(DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).

Запись по таймеру самозапуска

Вы можете выполнить запись по таймеру самозапуска. Этот режим полезен в том случае, если Вы хотите выполнить запись собственного изображения.

(1) Нажмите кнопку SELFTIMER в режиме ожидания. Индикатор ⏲ (таймер самозапуска) появится на экране ЖКД или в видоискателе.
(2) Нажмите кнопку START/STOP.
Таймер самозапуска начнет обратный отсчет с 10 с зуммерным сигналом. В последние две секунды обратного отсчета зуммерный сигнал будет звучать чаще, а затем автоматически начнется запись.

Для остановки таймера самозапуска во время записи

Нажмите кнопку START/STOP.
Для удобства используйте пульт дистанционного управления.

Для записи неподвижных изображений с помощью таймера самозапуска

Нажмите кнопку PHOTO в пункте 2 (стр. 47).

Для записи неподвижных изображений на "Memory Sticks"

Нажмите кнопку SELFTIMER, затем нажмите кнопку PHOTO в режиме памяти (стр. 143).

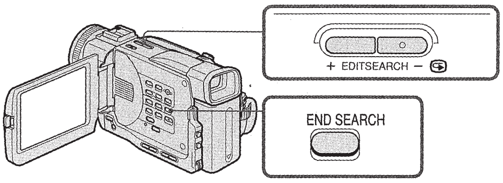
Для отмены записи по таймеру самозапуска

Нажмите кнопку SELFTIMER, чтобы индикатор ⏲ исчез с экрана ЖКД или видоискателя в тот момент, когда видеокамера находится в режиме ожидания.

Примечание
Режим записи по таймеру самозапуска будет автоматически отменен, в случаях:
- Окончания записи по таймеру самозапуска.
- Переключатель POWER установлен в положение OFF (CHG) или VCR(DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).

Checking the recording
– END SEARCH / EDITSEARCH / Rec Review

You can use these buttons to check the recorded picture or shoot so that the transition between the last recorded scene and the next scene you record is smooth.



END SEARCH

You can go to the end of the recorded section after you record.

Press END SEARCH in the standby mode.
The last five seconds of the recorded section are played back and playback stops. You can monitor the sound from the speaker or headphones.

EDITSEARCH

You can search for the next recording start point.

Hold down the +/– ⊜ side of EDITSEARCH in the standby mode. The recorded section is played back.
+ : to go forward
– ⊜ : to go backward
Release EDITSEARCH to stop playback. If you press START/STOP, re-recording begins from the point you released EDITSEARCH. You cannot monitor the sound.

Проверка записи
– END SEARCH/EDITSEARCH/ Просмотр записи

Вы можете использовать эти кнопки для проверки записанного изображения или съемки, чтобы переход между последним записанным эпизодом и следующим записываемым эпизодом был плавным.

END SEARCH

Вы можете дойти до конца записанной части ленты после выполнения записи.

Нажмите кнопку END SEARCH в режиме ожидания.
Будут воспроизведены последние пять секунд записанной части, и воспроизведение остановится. Вы можете контролировать звук через акустическую систему или головные телефоны.

EDITSEARCH

Вы можете выполнять поиск начала следующей записи.

Держите нажатой сторону +/– ⊜ кнопки EDITSEARCH в режиме ожидания. Будет воспроизведена записанная часть.
+ : для продвижения вперед
– ⊜ : для продвижения назад
Отпустите кнопку EDITSEARCH для остановки воспроизведения. Если Вы нажмете кнопку START/STOP, начнется перезапись с того места, где была отпущена кнопка EDITSEARCH. Вы не можете контролировать звук.

Checking the recording – END SEARCH / EDITSEARCH / Rec Review

Rec Review

You can check the last recorded section.

Press the – ⊜ side of EDITSEARCH momentarily in the standby mode.
The last few seconds of the selected section are played back. You can monitor the sound from the speaker or headphones.

End search function
When you use a tape without cassette memory, the end search function does not work once you eject the cassette after you have recorded on the tape. If you use a tape with cassette memory, the end search function works even once you eject the cassette.
If there is a blank portion in the recorded portion, the end search function may not work correctly (p. 171).

Проверка записи – END SEARCH/EDITSEARCH/ Просмотр записи

Просмотр записи

Вы можете проверить последнюю записанную часть.

В режиме ожидания ненадолго нажмите на сторону – ⊜ кнопки EDITSEARCH.
Будут воспроизведены последние несколько секунд выбранной части. Вы можете контролировать звук через акустическую систему или головные телефоны.

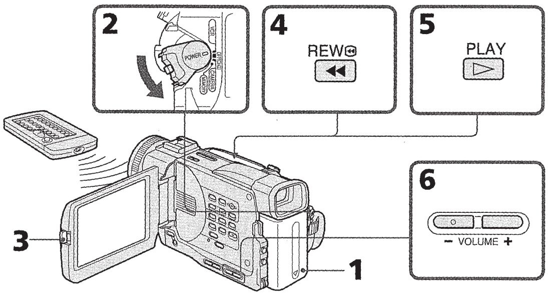
Функция поиска конца
Если Вы используете ленту без кассетной памяти, функция поиска конца не будет работать после извлечения кассеты, на которую была выполнена запись. Если Вы используете ленту с кассетной памятью, функция поиска конца будет работать даже после извлечения кассеты.
Если на записанной ленте имеется незаписанный участок, функция поиска конца может работать неправильно (стр. 171).

— Playback – Basics —

Playing back a tape

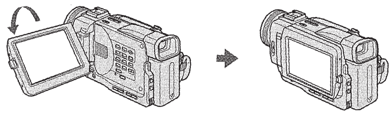
You can monitor the playback picture on the LCD screen. If you close the LCD panel, you can monitor the playback picture in the viewfinder. You can control playback using the Remote Commander supplied with your camcorder.

(1) Install the power source and insert the recorded tape.
(2) Set the POWER switch to VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E) while pressing the small green button. The video control buttons light up.
(3) To open the LCD panel, press OPEN.
(4) Press ◀◀ to rewind the tape.
(5) Press ▶ to start playback.
(6) To adjust the volume, press either of the two buttons on VOLUME. The speaker on your camcorder is silent when the LCD panel is closed.



To stop playback
Press ■.

When monitoring on the LCD screen
You can turn the LCD panel over and move it back to the camcorder body with the LCD screen facing out.



— Воспроизведение - Основные положения —

Воспроизведение ленты

Вы можете контролировать воспроизводимое изображение на экране ЖКД. Если Вы закроете панель ЖКД, воспроизводимое изображение можно контролировать в видоискателе. Вы можете контролировать воспроизведение с помощью пульта дистанционного управления, прилагаемого к этой видеокамере.

(1) Установите источник питания и вставьте записанную ленту.
(2) Установите переключатель POWER в положение VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E), нажав маленькую зеленую кнопку. Появится индикация кнопок управления видеоизображением.
(3) Нажмите OPEN, чтобы открыть панель ЖКД.
(4) Нажмите кнопку ◀◀ для ускоренной перемотки ленты.
(5) Нажмите кнопку ▶ для начала воспроизведения.
(6) Для регулировки громкости нажимайте одну из двух кнопок VOLUME. Если панель ЖКД на видеокамере закрыта, динамик не будет работать.

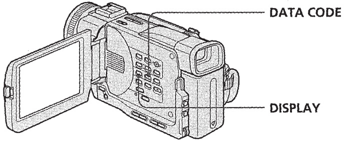
Для остановки воспроизведения
Нажмите ■.

Во время контроля на экране ЖКД
Вы можете перевернуть панель управления и сложить ее с корпусом видеокамеры, так что экран ЖКД будет обращен наружу.

Playing back a tape

To display the screen indicators – Display function

Press DISPLAY on your camcorder or the Remote Commander supplied with your camcorder.
The indicators appear on the LCD screen.
To make the indicators disappear, press DISPLAY again.



Using the data code function
Your camcorder automatically records not only images on the tape but also the recording data (date/time or various settings when recorded) **(Data code)**.

Press DATA CODE on your camcorder or the Remote Commander in the playback mode.

The display changes as follows:
date/time → various settings (SteadyShot, white balance, gain, shutter speed, aperture value) → no indicator

Воспроизведение ленты

Для отображения экранных индикаторов – Функция индикации

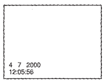
Нажмите кнопку DISPLAY на Вашей видеокамере или на пульте дистанционного управления, который прилагается к этой видеокамере.
На экране ЖКД появятся индикаторы.
Для того, чтобы индикаторы исчезли, нажмите еще раз кнопку DISPLAY.

Использование функции кода даты
Ваша видеокамера автоматически записывает на ленту не только изображения, но также и данные записи (дату/время или разные установки при записи) **(Код данных)**.

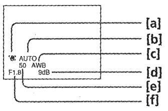
Нажмите кнопку DATA CODE на Вашей видеокамере или на пульте дистанционного управления в режиме воспроизведения.

Индикация будет изменяться следующим образом:
дата/время → разные установки (устойчивая съемка, баланс белого, усиление, скорость затвора, величина диафрагмы) → без индикации

Date/time/
Дата/время



Various settings/
Разные установки



[a] SteadyShot OFF indicator
[b] Exposure mode indicator
[c] White balance
[d] Gain indicator
[e] Sutter speed indicator
[f] Aperture value

[a] Индикатор выключенной устойчивой съемки SteadyShot OFF
[b] Индикатор режима экспозиции
[c] Баланс белого
[d] Индикатор усиления
[e] Индикатор скорости затвора
[f] Величина диафрагмы

Not to display various settings
Set DATA CODE to DATE in the menu settings (p. 116).
The display changes as follows:
date/time → no indicator

Recording data
Recording data is your camcorder's information when you have recorded. In the recording mode, the recording data will not be displayed.

When you use data code function, bars (-- -- --) appear if:
- A blank section of the tape is being played back.
- The tape is unreadable due to tape damage or noise.
- The tape was recorded by a camcorder without the date and time set.

Data code
The data code is displayed on the TV screen if you connect your camcorder to the TV (p. 37).

Для того, чтобы не отображались различные установки
Установите команду DATA CODE в положение DATE в установках меню (стр. 116).
Индикация будет изменяться следующим образом:
дата/время → без индикации

Записанные данные
Записанные данные являются информацией о записи, выполненной Вашей видеокамерой. В режиме записи данные отображаться не будут.

При использовании функции кода данных появляются полосы (-- -- --) если:
- Воспроизводится незаписанный участок на ленте.
- Лента является нечитаемой из-за повреждения или помех.
- Запись на ленту была выполнена видеокамерой без установки даты и времени.

Код данных
Код данных будет отображаться на экране телевизора, если Вы подсоедините видеокамеру к телевизору (стр. 37).

Various playback modes

To operate control buttons, set the POWER switch to VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).

To view a still picture (playback pause)
Press II during playback. To resume playback, press II or ►.

To advance the tape
Press ▶▶ in the stop mode. To resume normal playback, press ►.

To rewind the tape
Press ◀◀ in the stop mode. To resume normal playback, press ►.

To change the playback direction
Press < on the Remote Commander during playback to reverse the playback direction. To resume normal playback, press ► .

To locate a scene monitoring the picture (picture search)
Keep pressing ◀◀ or ▶▶ during playback. To resume normal playback, release the button.

To monitor the high-speed picture while advancing or rewinding the tape (skip scan)
Keep pressing ◀◀ while rewinding or ▶▶ while advancing the tape. To resume rewinding or advancing, release the button.

To view the picture at slow speed (slow playback)
Press I► on the Remote Commander during playback. For slow playback in the reverse direction, press <, then press I► on the Remote Commander. To resume normal playback, press ►.

Переменные режимы воспроизведения

Для использования кнопок управления установите переключатель POWER в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).

Для просмотра неподвижного изображения (пауза воспроизведения)
Во время воспроизведения нажмите кнопку II. Для возобновления обычного воспроизведения нажмите кнопку II или ►.

Для ускоренной перемотки ленты вперед
В режиме остановки нажмите кнопку ▶▶. Для возобновления обычного воспроизведения нажмите кнопку ►.

Для ускоренной перемотки ленты назад
В режиме остановки нажмите кнопку ◀◀. Для возобновления обычного воспроизведения нажмите кнопку ►.

Для изменения направления воспроизведения
Нажмите кнопку < на пульте дистанционного управления во время воспроизведения для изменения направления воспроизведения. Для возобновления обычного воспроизведения нажмите кнопку ►.

Для поиска эпизода во время контроля изображения (поиск изображения)
Держите нажатой кнопку ◀◀ или ▶▶ во время воспроизведения. Для перехода к обычному воспроизведению отпустите кнопку.

Для контроля изображения на высокой скорости во время ускоренной перемотки ленты вперед или назад (поиск методом прогона)
Держите нажатой кнопку ◀◀ во время ускоренной перемотки ленты назад или кнопку ▶▶ во время ускоренной перемотки ленты вперед. Для возобновления обычной перемотки ленты вперед или назад отпустите кнопку.

Для просмотра воспроизведения изображения на замедленной скорости (замедленное воспроизведение)
Нажмите кнопку I► на пульте дистанционного управления во время воспроизведения. Для замедленного воспроизведения в обратном направлении нажмите кнопку <, а затем нажмите кнопку I► на пульте дистанционного управления. Для возобновления обычного воспроизведения нажмите кнопку ►.

To view the picture at double speed
Press ×2 on the Remote Commander during playback. For double speed playback in the reverse direction, press <, then press ×2 on the Remote Commander. To resume normal playback, press ►.

To view the picture frame-by-frame
Press II► on the Remote Commander in the playback pause mode. For frame-by-frame playback in the reverse direction, press ◀II. To resume normal playback, press ►.

To search the last scene recorded (END SEARCH)
Press END SEARCH in the stop mode. The last five seconds of the recorded section are played back and stops.

End Search function
When you use a tape without cassette memory, the end search function does not work once you eject the cassette after you have recorded on the tape. If you use a tape with cassette memory, the end search function works even once you eject the cassette.

In the various playback modes
- Sound is muted.
- The previous picture may remain as a mosaic image during playback.

When the playback pause mode lasts for five minutes
Your camcorder automatically enters the stop mode. To resume playback, press ►.

Slow playback
The slow playback can be performed smoothly on your camcorder; however, this function does not work for an output signal from the i DV IN/OUT jack (DCR-TRV20E) or i DV OUT jack (DCR-TRV6E/TRV11E).

When you play back a tape in reverse
Horizontal noise appears at the centre or top and bottom of the screen. This is not a malfunction.

Для просмотра воспроизведения изображения на удвоенной скорости
Нажмите кнопку ×2 на пульте дистанционного управления во время воспроизведения. Для воспроизведения на удвоенной скорости в обратном направлении нажмите кнопку <, а затем нажмите кнопку ×2 на пульте дистанционного управления. Для возобновления обычного воспроизведения нажмите кнопку ►.

Для покадрового просмотра воспроизведения изображения
Нажмите кнопку II► на пульте дистанционного управления в режиме паузы воспроизведения. Для покадрового воспроизведения в обратном направлении нажмите кнопку ◀II. Для возобновления обычного воспроизведения нажмите кнопку ►.

Для поиска последнего записанного эпизода (END SEARCH)
Нажмите кнопку END SEARCH в режиме остановки. Будут воспроизведены последние пять секунд записанной части, и воспроизведение остановится.

Функция поиска конца
Если Вы используете ленту без кассетной памяти, функция поиска конца не будет работать после извлечения кассеты, на которую была выполнена запись. Если Вы используете ленту с кассетной памятью, функция поиска конца будет работать даже после извлечения кассеты.

В переменных режимах воспроизведения
- Звук будет приглушен.
- Во время воспроизведения предыдущее изображение может остаться мозаическим.

Если режим паузы при воспроизведении длится пять минут
Ваша видеокамера автоматически войдет в режим остановки. Для возобновления обычного воспроизведения нажмите кнопку ►.

Замедленное воспроизведение
На Вашей видеокамере можно выполнять плавное замедленное воспроизведение; однако эта функция не работает через выходной сигнал из гнезда i DV IN/OUT (DCR-TRV20E) или гнезда i DV OUT (DCR-TRV6E/TRV11E).

При воспроизведении ленты в обратном направлении
На экране могут появиться горизонтальные помехи по центру или же вверху и внизу экрана. Однако это не является неисправностью.

Viewing the recording on TV

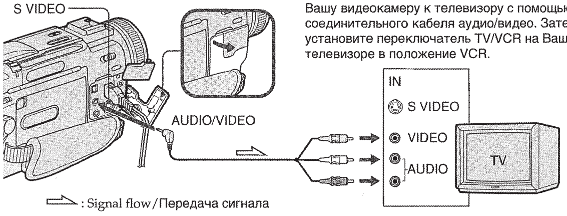
Connect your camcorder to your TV or VCR with the A/V connecting cable supplied with your camcorder to watch the playback picture on the TV screen. You can operate the playback control buttons in the same way as when you monitor playback pictures on the LCD screen. When monitoring the playback picture on the TV screen, we recommend that you power your camcorder from the mains using the AC power adaptor (p. 19). Refer to the operating instructions of your TV or VCR.

Open the jack cover. Connect your camcorder to the TV using the A/V connecting cable. Then, set the TV/VCR selector on the TV to VCR.

Просмотр записи на экране телевизора

Подсоедините Вашу видеокамеру к телевизору или видеомагнитофону с помощью соединительного кабеля аудио/видео, который прилагается к этой видеокамере для просмотра воспроизводимого изображения на экране телевизора. Вы можете использовать кнопки управления воспроизведением таким же способом, как при управлении воспроизводимым изображением на экране ЖКД. При управлении воспроизводимым изображением на экране телевизора рекомендуется подключить питание к Вашей видеокамере от сетевой розетки с помощью сетевого адаптера переменного тока Обратитесь к инструкции по эксплуатации Вашего телевизора или видеомагнитофона (стр. 19).

Откройте крышку гнезда. Подсоедините Вашу видеокамеру к телевизору с помощью соединительного кабеля аудио/видео. Затем, установите переключатель TV/VCR на Вашем телевизоре в положение VCR.



⇨ : Signal flow/Передача сигнала

If your TV is already connected to a VCR

Connect your camcorder to the LINE IN input on the VCR by using the A/V connecting cable supplied with your camcorder. Set the input selector on the VCR to LINE.

Если Ваш телевизор уже подсоединен к видеомагнитофону

Подсоедините Вашу видеокамеру к входному гнезду LINE IN на видеомагнитофоне с помощью соединительного кабеля аудио/видео, который прилагается к этой видеокамере. Установите селектор входного сигнала на видеомагнитофоне в положение LINE.

Viewing the recording on TV

If your TV or VCR is a monaural type

Connect the yellow plug of the A/V connecting cable to the video input jack and the white or the red plug to the audio input jack on the VCR or the TV. If you connect the white plug, the sound is L (left) signal. If you connect the red plug, the sound is R (right) signal.

If your TV/VCR has a 21-pin connector (EUROCONNECTOR)

Use the 21-pin adaptor supplied with your camcorder.

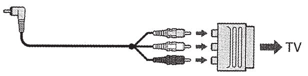
Просмотр записи на экране телевизора

Если Ваш телевизор или видеомагнитофон монофонического типа

Подсоедините желтый штекер соединительного кабеля аудио/видео к входному гнезду видеосигнала, а белый или красный штекер к входному гнезду аудиосигнала на видеомагнитофоне или телевизоре. При подсоединении белого штекера, Вы получите сигнал канала L (левого). При подсоединении красного штекера, Вы получите сигнал канала R (правого).

Если в Вашем телевизоре/видеомагнитофоне имеется 21-штырьковый разъем (EUROCONNECTOR)

Используйте 21-штырьковый адаптер, прилагаемый к Вашей видеокамере.



If your TV or VCR has an S video jack
Connect using an S video cable (not supplied) to obtain high-quality pictures. With this connection, you do not need to connect the yellow (video) plug of the A/V connecting cable. Connect the S video cable (not supplied) to the S video jacks on both your camcorder and the TV or the VCR.
This connection produces higher quality DV format pictures.

Если в Вашем телевизоре или видеомагнитофоне имеется гнездо S видео.
Выполните соединение с помощью кабеля S видео (не прилагается) для получения высококачественного изображения. При таком соединении Вам не нужно подключать желтый (видео) штекер соединительного кабеля аудио/видео.Подсоедините кабель S видео (не прилагается) к гнездам S видео на видеокамере и телевизоре или видеомагнитофоне.
При данном подсоединении Вы сможете получить высококачественные изображения формата DV.

Viewing the recording on TV

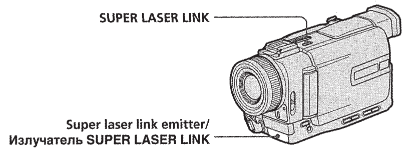
Using the AV cordless IR receiver

Once you connect the AV cordless IR receiver (not supplied) to your TV or VCR, you can easily view the picture on your TV: For details, refer to the operating instructions of the AV cordless IR receiver.

Просмотр записи на экране телевизора

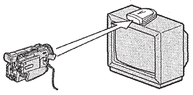
Использование беспроводного ИК приемника

После подсоединения беспроводного ИК приемника к Вашему телевизору (не прилагается), можно просмотреть изображение на экране телевизора. Подробные сведения содержатся в инструкции по эксплуатации беспроводного ИК приемника.



Insert a tape into your camcorder
(1) After connecting your TV and AV cordless IR receiver, set the POWER switch on the AV cordless IR receiver to ON.
(2) Set the POWER switch to VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).
(3) Turn the TV on and set the TV/VCR selector on the TV to VCR.
(4) Press SUPER LASER LINK. The lamp of SUPER LASER LINK lights up.
(5) Press ► on your camcorder to start playback.
(6) Point the super laser link emitter at the AV cordless IR receiver. Adjust the position of your camcorder and the AV cordless IR receiver to obtain clear playback pictures.

Вставьте ленту в видеокамеру
(1) После подсоединения к Вашему телевизору беспроводного ИК приемника установите переключатель POWER на беспроводном ИК приемнике в положение ON.
(2) Установите переключатель POWER в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).
(3) Включите телевизор и установите селектор TV/VCR на телевизоре в положение VCR.
(4) Нажмите кнопку SUPER LASER LINK. Загорится лампочка SUPER LASER LINK.
(5) Нажмите кнопку ► на видеокамере для начала воспроизведения.
(6) Направьте излучатель SUPER LASER LINK на беспроводный ИК приемник. Отрегулируйте положение Вашей видеокамеры и беспроводного ИК приемника для получения четкого воспроизводимого изображения.



To cancel the super laser link function
Press SUPER LASER LINK again. The lamp on the SUPER LASER LINK button goes out.

Для отмены функции лазерного суперканала передачи сигналов
Нажмите кнопку SUPER LASER LINK еще раз. Лампочка на кнопке SUPER LASER LINK погаснет.

Viewing the recording on TV

If you turn the power off
The super laser link function turns off automatically.

When the super laser link is activated (the SUPER LASER LINK button is lit)
Your camcorder consumes power. Press SUPER LASER LINK to turn off the laser link function when it is not needed.

is a trademark of Sony Corporation.

Просмотр записи на экране телевизора

Если Вы выключите питание
Функция лазерного суперканала передачи сигналов отключится ЖКД.

При включенном лазерном суперканале передачи сигналов (при этом подсвечивается кнопка SUPER LASER LINK)
Нажмите кнопку SUPER LASER LINK для выключения функции лазерного суперканала передачи сигналов, если она не требуется.

является торговой маркой корпорации Sony.

Recording a still image on a tape - Tape Photo recording

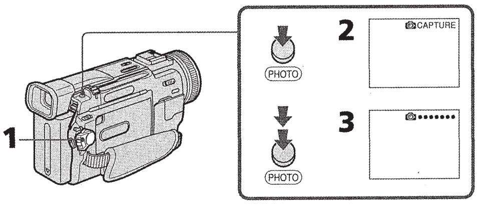
You can record a still picture, for example, a photograph or drawing. This mode is useful when you want to print a picture using a video printer (not supplied).
You can record about 510 pictures in the SP mode and about 765 pictures in the LP mode on a 60-minute tape.
Besides the operation described here, your camcorder can record still pictures on "Memory Stick"s (p. 138) (DCR-TRV11E/TRV20E only).

(1) Set the POWER switch to CAMERA.
(2) In the standby mode, keep pressing PHOTO lightly until a still picture appears.
The CAPTURE indicator appears. Recording does not start yet.
To change the still picture, release PHOTO, select a still picture again, and then press and hold PHOTO lightly.
(3) Press PHOTO deeper.
The still picture on the LCD screen or in the viewfinder is recorded for about seven seconds. The sound during those seven seconds is also recorded.
The still image is displayed on the LCD screen or in the viewfinder until recording is completed.

Запись неподвижного изображения на пленке - Фотосъемка на ленту

Вы можете записывать неподвижное изображение, например, фотографию или рисунок. Данный режим полезен при выполнении печати изображения с помощью видеопринтера (не прилагается).
Вы можете записать около 510 изображений в режиме SP и около 765 изображений в режиме LP на 60-минутной ленте.
Кроме вышеописанной операции, видеокамера может выполнить запись неподвижных изображений на "Memory Stick" (только для модели DCR-TRV11E/TRV20E) (стр. 138).

(1) Установите переключатель POWER в положение CAMERA.
(2) В режиме ожидания держите слегка нажатой кнопку PHOTO до тех пор, пока не появится неподвижное изображение.
Появится индикатор CAPTURE. Запись пока не начнется.
Для изменения неподвижного изображения отпустите кнопку PHOTO, выберите неподвижное изображение снова, а затем нажмите и держите слегка нажатой кнопку PHOTO.
(3) Нажмите кнопку PHOTO сильнее.
Неподвижное изображение на экране ЖКД или в видоискателе будет записываться около семи секунд. В течение этих семи секунд будет записываться и звук.
Неподвижное изображение отображается на экране ЖКД или в видоискателе до тех пор, пока не закончится запись.



Recording a still image on a tape – Tape Photo recording

Notes

- During tape photo recording, you cannot change the mode or setting.
- When recording a still picture, do not shake your camcorder. The picture may fluctuate.
- The PHOTO button does not work:
  - – while the fader function is set or in use
  - – while the digital effect function is set or in use

If you record a moving subject with tape photo recording function
When you play back the still picture on other equipment, the picture may fluctuate.

To use the tape photo recording function using the Remote Commander
Press PHOTO on the Remote Commander. Your camcorder records a picture on the LCD screen or in the viewfinder immediately.

To use the tape photo recording function during normal CAMERA recording
Press PHOTO deeper. The still picture is then recorded for about seven seconds and your camcorder returns to the standby mode. You cannot select another still picture.

To record clear and less fluctuated still pictures
We recommend that you record on "Memory Stick"s. (DCR-TRV11E/TRV20E only)

Запись неподвижного изображения на пленке – Фотосъемка на ленту

Примечания

- Во время фотосъемки на ленту невозможно изменить режим или установку.
- При записи неподвижного изображения не встряхивайте Вашу видеокамеру. Изображение может получиться размытым.
- Кнопка PHOTO не работает:
  - – в то время, когда установлена или используется функция фейдера.
  - – в то время, когда установлена или используется функция цифровых эффектов

Если Вы выполняете запись движущегося объекта с помощью функции фотосъемки на ленту
При воспроизведении неподвижного изображения на другой аппаратуре изображение может быть размытым.

Для использования функции фотосъемки на ленту с помощью пульта дистанционного управления
Нажмите кнопку PHOTO на пульте дистанционного управления. Ваша видеокамера сразу запишет изображения на экране ЖКД или в видоискателе.

Для использования функции фотосъемки на ленту во время обычной записи CAMERA
Нажмите кнопку PHOTO сильнее. Неподвижное изображение будет записываться около семи секунд, а затем видеокамера вернется в режим ожидания. Вы не сможете при этом выбрать другое неподвижное изображение.

Для записи четких и более устойчивых неподвижных изображений
Рекомендуется записывать на "Memory Stick". (только для модели DCR-TRV11E/TRV20E)

Recording a still image on a tape – Tape Photo recording

Self-timer tape photo recording

You can make a tape photo recording with the self-timer. This mode is useful when you want to record yourself.

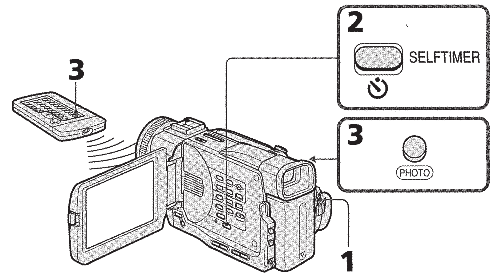
(1) Set the POWER switch to CAMERA.
(2) Press SELFTIMER. The ⏲ (self-timer) indicator appears on the LCD screen or in the viewfinder.
(3) Press PHOTO deeper.
Self-timer starts counting down from 10 with a beep sound. In the last two seconds of the countdown, the beep sound gets faster, then recording starts automatically.

Запись неподвижного изображения на пленке – Фотосъемка на ленту

Фотосъемка на ленту по таймеру самозапуска

Можно выполнять фотосъемку на ленту по таймеру самозапуска. Этот режим полезен в том случае, если Вы хотите выполнить запись собственного изображения.

(1) Установите переключатель POWER в положение CAMERA.
(2) Нажмите кнопку SELFTIMER. Индикатор ⏲ (таймер самозапуска) появится на экране ЖКД или в видоискателе.
(3) Нажмите кнопку PHOTO сильнее.
Таймер самозапуска начнет обратный отсчет с 10 с зуммерным сигналом. В последние две секунды обратного отсчета зуммерный сигнал будет звучать чаще, а затем автоматически начнется запись.



To cancel self-timer tape photo recording
Press SELFTIMER so that the ⏲ indicator disappears from the LCD screen or in the viewfinder while your camcorder is in the standby mode. You cannot cancel the self-timer tape photo recording using the Remote Commander.

Note
The self-timer tape photo recording mode is automatically cancelled when:
- Self-timer tape photo recording is finished.
- The POWER switch is set to OFF (CHG) or VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).

Для отмены фотосъемки на ленту по. таймеру самозапуска
Нажмите кнопку SELFTIMER, чтобы индикатор ⏲ исчез с экрана ЖКД или видоискателя в тот момент, когда видеокамера находится в режиме ожидания. Фотосъемку на ленту по таймеру самозапуска невозможно отменить с помощью пульта дистанционного управления.

Примечание
Режим фотосъемки на ленту по таймеру самозапуска будет автоматически отменен в случаях:
- Фотосъемка на ленту по таймеру самозапуска закончена.
- Переключатель POWER установлен в положение OFF (CHG) или VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).

Recording a still image on a tape – Tape Photo recording

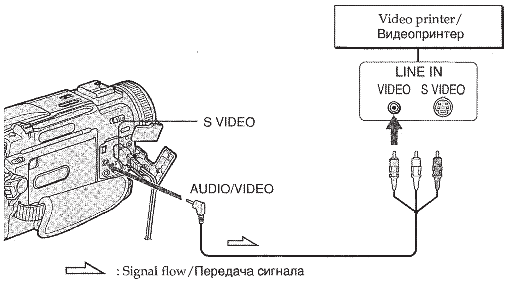
Printing the still picture

You can print a still picture by using the video printer (not supplied). Connect the video printer using the A/V connecting cable supplied with your camcorder.
Connect it to the AUDIO/VIDEO jack and connect the yellow plug of the cable to the video input of the video printer. Refer to the operating instructions of the video printer as well.

Запись неподвижного изображения на пленке – Фотосъемка на ленту

Печать неподвижного изображения

Неподвижное изображение можно распечатать с помощью видеопринтера (не прилагается). Подсоедините видеопринтер с помощью соединительного кабеля аудио/видео, который прилагается к Вашей видеокамере.
Подсоедините его к гнезду AUDIO/VIDEO, а желтый штекер кабеля подсоедините к входному гнезду видеосигнала на видеопринтере. Обратитесь к инструкции по эксплуатации видеопринтера.



If the video printer is equipped with S video input
Use the S video connecting cable (not supplied). Connect it to the S VIDEO jack and the S video input of the video printer.

Если в видеопринтере имеется входное гнездо S видео
Используйте соединительный кабель S видео (не прилагается). Подсоедините его к гнезду S VIDEO и ко входному гнезду S видео на видеопринтере.

Adjusting the white balance manually

You can manually adjust and set the white balance. This adjustment makes white subjects look white and allows more natural colour balance. Normally white balance is automatically adjusted.

In the standby, recording or memory mode, select a desired white balance mode in 🄼 in the menu settings. (p. 116)

☼ (INDOOR):
- Lighting condition changes quickly
- Too bright place such as photography studios
- Under sodium lamps or mercury lamps

☀ (OUTDOOR):
- Recording a sunset/sunrise, just after sunset, just before sunrise, neon signs, or fireworks
- Under a colour matching fluorescent lamp

HOLD:
Recording a single-coloured subject or background

Регулировка баланса белого вручную

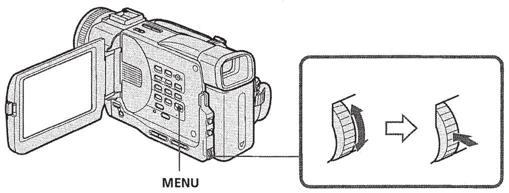
Вы можете отрегулировать и установить вручную баланс белого. Эта регулировка позволяет придать белым объектам истинно белый цвет и добиться более естественного цветового баланса. Обычно баланс белого подстраивается автоматически.

В режиме ожидания, записи или памяти выберите нужный режим баланса белого 🄼 в установках меню. (стр. 116)

☼ (INDOOR - режим "в помещении"):
- При быстрой смене условий освещения
- В очень хорошо освещенном месте, например, фотостудии
- При освещении объекта натриевой или ртутной лампой

☀ (OUTDOOR - режим "на улице"):
- При записи заката/восхода солнца, вечерней или утренней зари, неоновых реклам или фейерверков
- При освещении флуоресцентными лампами разных цветов

HOLD:
При записи одноцветного предмета или фона



To return to the automatic white balance mode
Set WHT BAL to AUTO in the menu settings.

Для возвращения к автоматическому режиму баланса белого
Установите команду WHT BAL в положение AUTO в установках меню.

Adjusting the white balance manually

If the picture is being taken in a studio lit by TV lighting
We recommend you to record in the ☼ indoor mode.

When you record under fluorescent lighting
Use the automatic white balance or hold mode. Your camcorder may not adjust the white balance correctly in the ☼ indoor mode.

In the automatic white balance mode
Point your camcorder at a white subject for about 10 seconds after setting the POWER switch to CAMERA to get a better adjustment when:

- You detach the battery for replacement.
- You bring your camcorder to the outdoors from the interior of a house, or vice versa.

In the hold white balance mode
Set the white balance to AUTO and reset to HOLD after a few seconds when:

- You change the PROGRAM AE mode.
- You bring your camcorder to the outdoors from the interior of a house, or vice versa.

Регулировка баланса белого вручную

В случае фотографирования изображения в студии при телевизионном освещении
Рекомендуется использовать для записи режим “в помещении” ☼.

В случае записи при освещении лампами дневного света
Используйте автоматический режим баланса белого или режим блокировки.
Ваша видеокамера может не отрегулировать надлежащим образом баланс белого в режиме “в помещении” ☼.

В автоматическом режиме баланса белого
Направьте видеокамеру на белый предмет приблизительно на 10 секунд после установки переключателя POWER в положение CAMERA для получения лучшего качества, когда:

- Вы отсоединяете батарейный блок для замены.
- Вы выходите с камерой из помещения на улицу или наоборот.

В режиме баланса белого “HOLD”
Установите баланс белого в положение AUTO и снова верните в положение HOLD через несколько секунд, когда:

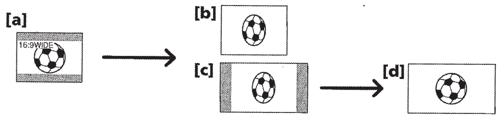
- Вы изменяете режим PROGRAM AE.
- Вы выходите с камерой из помещения на улицу или наоборот.

Using the wide mode

You can record a 16:9 wide picture to watch on the 16:9 wide-screen TV (16:9WIDE).
Black bands appear on the screen during recording in 16:9WIDE mode **[a]**. The picture during playing back on a normal TV **[b]** or a wide -screen TV **[c]** are compressed in the widthwise direction. If you set the screen mode of the wide-screen TV to the full mode, you can watch pictures of normal images **[d]**.

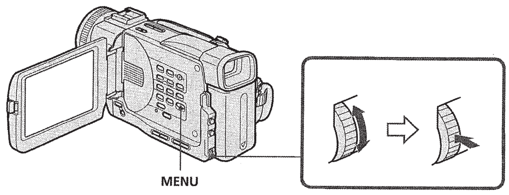
Использование широкоэкранного режима

Вы можете записывать широкоформатное изображение16:9 для просмотра на широкоэкранном телевизоре формата 16:9 (16:9WIDE).
Во время записи в режиме 16:9WIDE на экране появятся черные полосы **[a]**.
Изображение во время воспроизведения на обычном телевизоре **[b]** или на широкоэкранном телевизоре **[c]** будет сжато по ширине. Если Вы установите экранный режим широкоэкранного телевизора в полноэкранный режим, то получите изображения нормального размера **[d]**.



In the standby mode, set 16:9WIDE in ▣ to ON in the menu settings (p. 116).

В режиме ожидания установите команду 16:9WIDE в положение ON в ▣ в установках меню (стр. 116).



To cancel the wide mode
Set 16:9WIDE to OFF in the menu settings.

Для отмены широкоэкранного режима
Установите команду 16:9WIDE в положение OFF в установках меню.

Using the wide mode

In the wide mode, you cannot select the following functions:
– Old movie
– Bounce (DCR-TRV6E/TRV11E only)

During recording
You cannot select or cancel the wide mode. When you cancel the wide mode, set your camcorder to the standby mode and then set 16:9WIDE to OFF in the menu settings.

Использование широкоэкранного режима

В широкоэкранном режиме нельзя выбрать следующие функции:
– Старинное кино
– Функция перескакивания (только для модели DCR-TRV6E/TRV11E)

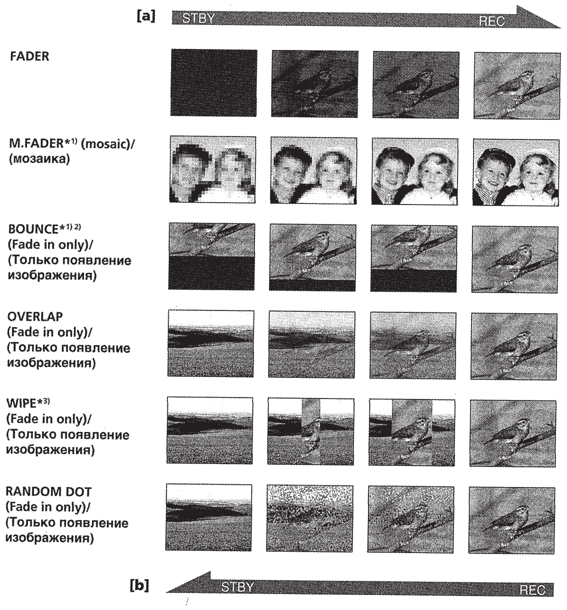
Во время записи
Вы не можете изменить или отменить широкоэкранный режим.
Если нужно отменить широкоэкранный режим, установите видеокамеру в режим ожидания, а затем установите режим 16:9WIDE в положение OFF в установках меню.

Using the fader function

You can fade in or out to give your recording a professional appearance.

Использование функции фейдера

Вы можете выполнять плавное введение и выведение изображения, чтобы придать Вашей съемке профессиональный вид.



MONOTONE
When fading in, the picture gradually changes from black-and-white to colour.
When fading out the picture gradually changes from colour to black-and-white.

*1) DCR-TRV6E/TRV11E only
*2) You can use this function only when D ZOOM is set to OFF in the menu settings.
*3) The sound does not wipe away.

MONOTONE
При введении изображение будет постепенно изменяться от черно-белого до цветного.
При плавном исчезновении изображение будет постепенно изменяться от цветного до черно-белого.

*1) только для модели DCR-TRV6E/TRV11E
*2) Вы можете использовать эту функцию только в том случае, если команда D ZOOM установлена в положение OFF в установках меню.
*3) Звук не будет исчезать.

Using the fader function

(1) When fading in [a]
In the standby mode, press FADER until the desired fader indicator flashes.
When fading out [b]
In the recording mode, press FADER until the desired fader indicator flashes.
The indicator changes as follows:
FADER → M.FADER* → BOUNCE* → MONOTONE → OVERLAP → WIPE → DOT → no indicator
The last selected fader mode is indicated first of all.

(2) Press START/STOP. The fader indicator stops flashing.

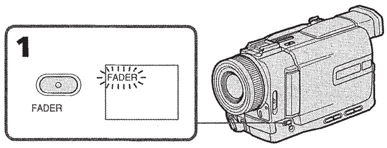
* DCR-TRV6E/TRV11E only

Использование функции фейдера

(1) При введении изображения [a]
В режиме ожидания, нажимайте кнопку FADER до тех пор, пока не начнет мигать нужный индикатор фейдера.
При выведении изображения [b]
В режиме записи, нажимайте кнопку FADER до тех пор, пока не начнет мигать нужный индикатор фейдера.
Индикатор будет изменяться следующим образом:
FADER → M.FADER* → BOUNCE* → MONOTONE → OVERLAP → WIPE → DOT → без индикации
Последний из выбранных режимов фейдера отображается первым.

(2) Нажмите кнопку START/STOP. Индикатор фейдера перестанет мигать.

* только для модели DCR-TRV6E/TRV11E



To cancel the fader function

After the fade in/out is carried out : Your camcorder automatically returns to the normal mode.
Before the fade in/out is carried out : Before pressing START/STOP, press FADER until the indicator disappears.

Для отмены функции фейдера

После выполнения операции появления/исчезновения изображения : Ваша видеокамера автоматически вернется в обычный режим.
Перед выполнением операции появления/исчезновения изображения : До нажатия кнопки START/STOP нажмите кнопку FADER, пока не исчезнет индикатор.

Using the fader function

Note

You cannot use the following functions while using the fader function. Also, you cannot use the fader function while using the following functions:
- Digital effect
- Low lux mode of PROGRAM AE (Overlap, Wipe, or Random Dot function only)
- Super NightShot
- Tape Photo recording

When the OVERLAP, WIPE, or RANDOM DOT indicator appear in the standby mode
Your camcorder automatically stores the image recorded on a tape. As the image is being stored, the indicators flash fast, and the playback picture disappears. At this stage, the picture may not be recorded clearly, depending on the tape condition.

While using the bounce function, you cannot use the following functions (DCR-TRV6E/TRV11E only):
- Exposure
- Focus
- Zoom
- Picture effect

Note on the bounce function (DCR-TRV6E/TRV11E only)
The BOUNCE indicator does not appear in the following mode or functions:
- D ZOOM is activated in the menu settings
- 16:9 wide
- Picture effect
- PROGRAM AE

While in memory mode (DCR-TRV11E/TRV20E only)
You cannot use the fader function.

Использование функции фейдера

Примечание

Вы не можете использовать следующие функции во время использования функции фейдера. Кроме того, Вы не можете использовать функцию фейдера во время использования следующих функций:
- Цифровой эффект
- Режим низкой освещенности PROGRAM AE (только для функции наложения, удаления изображения или заполнения точками)
- Режим улучшенной ночной съемки
- Фотосъемка на ленту

Если в режиме ожидания появился индикатор OVERLAP, WIPE или RANDOM DOT
Ваша видеокамера автоматически сохранит изображение на ленте. При сохранении изображения индикатор начинает часто мигать, а воспроизводимое изображение исчезает. На этом этапе изображение может быть записано нечетко в зависимости от состояния ленты.

Во время использования функции перескакивания Вы не можете использовать следующие функции (только для модели DCR-TRV6E/TRV11E):
- Экспозиция
- Фокусировка
- Трансфокация
- Эффект изображения

Примечание по функции перескакивания (только для модели DCR-TRV6E/TRV11E)
Индикатор BOUNCE не появляется в следующих режимах или при использовании следующих функций:
- Команда D ZOOM включена в установках меню
- Широкоформатное изображение 16:9
- Эффект изображения
- PROGRAM AE

При использовании режима памяти (только для модели DCR-TRV11E/TRV20E)
Вы не можете использовать функцию фейдера.

Using special effects – Picture effect

You can digitally process images to obtain special effects like those in films or on the TV.

NEG. ART [a] :	The colour and brightness of the picture is reversed.
SEPIA :	The picture is sepia.
B&W :	The picture is monochrome (black-and-white).
SOLARIZE [b] :	The light intensity is clearer, and the picture looks like an illustration.
SLIM [c] :	The picture expands vertically.
STRETCH [d] :	The picture expands horizontally.
PASTEL [e] :	The contrast of the picture is emphasized, and the picture looks like an animated cartoon.
MOSAIC [f] :	The picture is mosaic.

Использование специальных эффектов – Эффект изображения

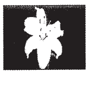
Вы можете выполнять обработку изображения цифровым методом для получения специальных эффектов, как в кинофильмах или на экранах телевизоров.

NEG. ART [a] :	Цвет и яркость изображения будут негативными.
SEPIA :	Изображение будет цвета сепии.
B&W :	Изображение будет монохромным (черно-белым).
SOLARIZE [b] :	Яркость света будет усиленной, а изображение будет выглядеть как рисунок.
SLIM [c] :	Изображение растянется по вертикали.
STRETCH [d] :	Изображение растянется по горизонтали.
PASTEL [e] :	Подчеркивается контрастность изображения, которому придается мультипликационный вид.
MOSAIC [f] :	Изображение будет мозаическим.

[a]

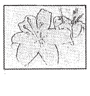
[b]

[c]



[d]

[e]



[f]

Using special effects – Picture effect

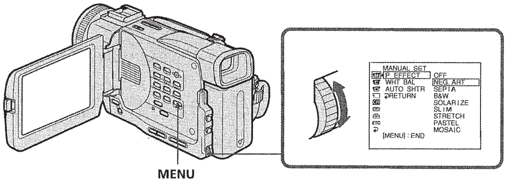
(1) In the standby or recording mode, select P EFFECT in 🄼 in the menu settings. (p. 116)

(2) Select the desired picture effect mode in the menu settings.

Использование специальных эффектов – Эффект изображения

(1) В режиме ожидания или записи выберите команду P EFFECT в 🄼 в установках меню. (стр. 116)

(2) Выберите желаемый режим эффекта изображения в установках меню.



To cancel the picture effect function

Set P EFFECT to OFF in the menu settings.

While using the picture effect function
You cannot select the old movie mode with DIGITAL EFFECT.

When you turn the power off
Your camcorder automatically returns to the normal mode.

Для отмены функции эффектов изображения

Установите команду P EFFECT в положение OFF в установках меню.

При использовании функции эффекта изображения
Вы не можете выбрать режим старинного кино с помощью функции DIGITAL EFFECT.

При выключении питания
Ваша видеокамера автоматически вернется в обычный режим.

Using special effects – Digital effect

You can add special effects to recorded pictures using the various digital functions. The sound is recorded normally.

STILL
You can record a still picture so that it is superimposed on a moving picture.

FLASH (FLASH MOTION)
You can record still pictures successively at constant intervals.

LUMI. (LUMINANCEKEY)
You can swap a brighter area in a still picture with a moving picture.

TRAIL
You can record the picture so that an incidental image like a trail is left.

SLOW SHTR (SLOW SHUTTER)
You can slow down the shutter speed. The slow shutter mode is good for recording dark pictures more brightly. However, the picture may be less clear.

OLD MOVIE
You can add an old movie type atmosphere to pictures. Your camcorder automatically sets the wide mode to ON, picture effect to SEPIA, and the appropriate shutter speed.

Использование специальных эффектов – Цифровой эффект

Вы можете добавлять специальные эффекты на записываемое изображение с помощью различных цифровых функций.
Записываемый звук будет обычным.

STILL
Вы можете записывать неподвижное изображение, которое можно налагать на подвижное изображение.

FLASH (FLASH MOTION)
Вы можете записывать неподвижные изображения в последовательности через определенные интервалы.

LUMI. (LUMINANCEKEY)
Вы можете изменять более яркие места на неподвижном изображении на подвижные изображения.

TRAIL
Вы можете записывать изображение с эффектом запаздывания.

SLOW SHTR (SLOW SHUTTER)
Вы можете замедлить скорость затвора. Режим медленного затвора используется для того, чтобы при записи сделать темные изображения более светлыми. Однако, изображение может получиться менее четким.

OLD MOVIE
Вы можете выполнить съемку с эффектом старинного кино. Ваша видеокамера будет автоматически устанавливать широкоэкранный режим в положение ON, эффект изображения в положение SEPIA и выставлять соответствующую скорость затвора.

Still picture/
Неподвижное
изображение
Moving picture/
Подвижное
изображение
STILL
Still picture/
Неподвижное
изображение
Moving picture/
Подвижное
изображение
LUMI.

Using special effects – Digital effect

(1) In the standby or recording mode, press DIGITAL EFFECT. The digital effect indicator appears.
(2) Turn the SEL/PUSH EXEC dial to select the desired digital effect mode.
The indicator changes as follows:
STILL ←→ FLASH ←→ LUMI. ←→ TRAIL ←→ SLOW SHTR ←→ OLD MOVIE
(3) Press the SEL/PUSH EXEC dial. The indicator lights up and the bars appear. In the STILL and LUMI. modes, the still picture is stored in memory.
(4) Turn the SEL/PUSH EXEC dial to adjust the effect.

Items to adjust

STILL	The rate of the still picture you want to superimpose on the moving picture
FLASH	The interval of flash motion
LUMI.	The colour scheme of the area in the still picture which is to be swapped with a moving picture
TRAIL	The vanishing time of the incidental image
SLOW SHTR	Shutter speed. The larger the shutter speed number, the slower the shutter speed.
OLD MOVIE	No adjustment necessary

The more bars there are on screen, the stronger the digital effect. The bars appear in the following modes: STILL, FLASH, LUMI. and TRAIL.

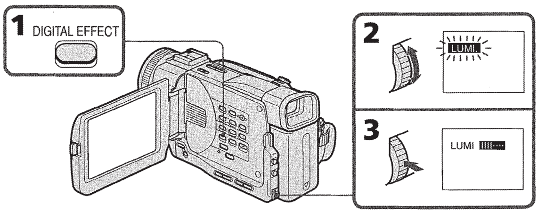
Использование специальных эффектов – Цифровой эффект

(1) В режиме ожидания или записи нажмите кнопку DIGITAL EFFECT. Появится индикатор цифрового эффекта.
(2) Поверните диск SEL/PUSH EXEC для выбора режима нужного цифрового эффекта.
Индикатор будет изменяться следующим образом:
STILL ←→ FLASH ←→ LUMI. ←→ TRAIL ←→ SLOW SHTR ←→ OLD MOVIE
(3) Нажмите на диск SEL/PUSH EXEC. Загорится индикатор и появятся полосы. В режимах STILL и LUMI. неподвижное изображение будет сохранено в памяти.
(4) Поверните диск SEL/PUSH EXEC для регулировки эффекта.

Пункты для регулировки

STILL	Интенсивность неподвижного изображения, которое нужно наложить на подвижное изображение
FLASH	Интервал прерывистого движения
LUMI.	Цветовая гамма области неподвижного изображения, которую нужно заменить подвижным изображением
TRAIL	Время исчезания побочного изображения
SLOW SHTR	Скорость затвора. Чем больше величина скорости затвора, тем меньше скорость затвора
OLD MOVIE	Регулировок не требуется

Чем больше полос на экране, тем сильнее цифровой эффект. Полосы появляются в следующих режимах: STILL, FLASH, LUMI. и TRAIL.



Using special effects – Digital effect

To cancel the digital effect function
Press DIGITAL EFFECT again.

Notes
- The following functions do not work during digital effect mode:
  - Fader
  - Low lux mode of PROGRAM AE
  - Tape Photo recording
  - Super NightShot
- The following function does not work in the slow shutter mode:
  - PROGRAM AE
- The following functions do not work in the old movie mode:
  - 16:9 wide
  - Picture effect
  - PROGRAM AE

When you turn the power off
The digital effect will be automatically cancelled.

When recording in the slow shutter mode
Auto focus may not be effective. Focus manually using a tripod.

Shutter speed

Shutter speed number	Shutter speed
SLOW SHTR 1	1/25
SLOW SHTR 2	1/12
SLOW SHTR 3	1/6
SLOW SHTR 4	1/3

Использование специальных эффектов – Цифровой эффект

Для отмены функции цифровых эффектов
Нажмите кнопку DIGITAL EFFECT еще раз.

Примечания
- Следующие функции не работают при использовании режима цифрового эффекта:
  - Фейдер
  - Режим низкой освещенности PROGRAM AE
  - Фотосъемка на ленту
  - Режим улучшенной ночной съемки
- Следующая функция не работает в режиме медленного затвора:
  - PROGRAM AE
- Следующие функции не работают в режиме старинного кино:
  - Широкоформатное изображение 16:9
  - Эффект изображения
  - PROGRAM AE

При выключении питания
Цифровой эффект будет автоматически отменен.

При записи в режиме медленного затвора
Автоматическая фокусировка может быть не эффективной. Выполните фокусировку вручную, используя штатив.

Скорость затвора

Величина скорости затвора	Скорость затвора
SLOW SHTR 1	1/25
SLOW SHTR 2	1/12
SLOW SHTR 3	1/6
SLOW SHTR 4	1/3

Using the PROGRAM AE function

You can select PROGRAM AE (Auto Exposure) mode to suit your specific shooting requirements.

Spotlight mode
This mode prevents people's faces, for example, from appearing excessively white when shooting subjects lit by strong light in the theatre.

Soft portrait mode
This mode brings out the subject while creating a soft background for subjects such as people or flowers.

Sports lesson mode
This mode minimizes shake on fast-moving subjects such as in tennis or golf.

Beach & ski mode
This mode prevents people's faces from appearing dark in strong light or reflected light, such as at a beach in midsummer or on a ski slope.

Sunset & moon mode
This mode allows you to maintain atmosphere when you are recording sunsets, general night views, fireworks displays, and neon signs.

Landscape mode
This mode is for when you are recording distant subjects such as mountains and prevents your camcorder from focusing on glass or metal mesh in windows when you are recording a subject behind glass or a screen.

Low lux mode
This mode makes subjects brighter in insufficient light.

Использование функции PROGRAM AE

Вы можете выбрать режим PROGRAM AE (автоматическая экспозиция) в соответствии со специфическими требованиями к съемке.

Режим прожекторного освещения
Данный режим позволяет выполнять съемку таким образом, чтобы лица людей не выглядели слишком бледными, например, при съемке объектов в театре, где часто применяется яркое освещение.

Мягкий портретный режим
Этот режим позволяет выделить объект на мягком фоне, и подходит для съемки, например людей или цветов.

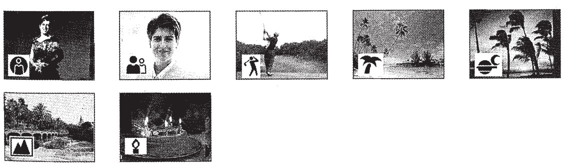
Режим спортивных состязаний
Этот режим позволяет минимизировать дрожание при съемке быстро движущихся предметов, например, при игре в теннис или гольф.

Пляжный и лыжный режим
Этот режим предотвращает появление темных лиц людей в зоне сильного света или отраженного света, например, на пляже в разгар лета или на снежном склоне.

Режим захода солнца и луны
Этот режим позволяет в точности отражать обстановку при съемке заходов солнца, общих ночных видов, фейерверков и неоновых реклам.

Ландшафтный режим
Этот режим позволяет выполнять съемку отдаленных объектов, таких как горы, и предотвращает фокусировку видеокамеры на стекло или металлическую решетку на окнах, когда Вы выполняете запись объектов позади стекла или решетки.

Режим низкой освещенности
Этот режим делает объекты ярче при недостаточном освещении.



Using the PROGRAM AE function

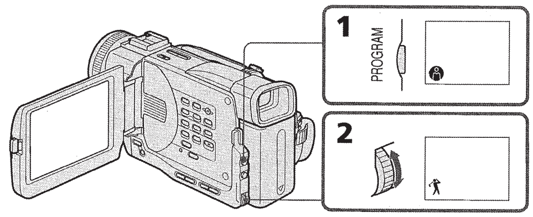
(1) In the standby or memory mode, press PROGRAM AE. The PROGRAM AE indicator appears.

(2) Turn the SEL/PUSH EXEC dial to select the desired PROGRAM AE mode.
The indicator changes as follows:
● ↔ 👥 ↔ 🏌 ↔ 🌴 ↔ 🌅 ↔ 🏞 ↔ 💡

Использование функции PROGRAM AE

(1) В режиме ожидания или памяти нажмите кнопку PROGRAM AE. Появится индикатор PROGRAM AE.

(2) Поверните диск SEL/PUSH EXEC для выбора нужного режима PROGRAM AE. Индикатор будет изменяться следующим образом:
● ↔ 👥 ↔ 🏌 ↔ 🌴 ↔ 🌅 ↔ 🏞 ↔ 💡



To cancel the PROGRAM AE function

Press PROGRAM AE again.

Для выключения функции PROGRAM AE

Нажмите кнопку PROGRAM AE еще раз.

Using the PROGRAM AE function

Notes

- In the spotlight, sports lesson, and beach & ski modes, you cannot take close-ups. This is because your camcorder is set to focus only on subjects in the middle to far distance.
- In the sunset & moon and landscape modes, your camcorder is set to focus only on distant subjects.
- The following functions do not work in the PROGRAM AE mode:
  - Slow shutter
  - Old movie
  - Bounce (DCR-TRV6E/TRV11E only)
- The following functions do not work in the low lux mode:
  - Digital effect
  - Overlap
  - Wipe
  - Random dot
- While setting the NIGHTSHOT to ON, the PROGRAM AE function does not work. (The indicator flashes.)
- While shooting in memory mode, the low lux and sports lesson modes do not work. (The indicator flashes.)

While WHT BAL is set to AUTO in the menu settings
The white balance is adjusted even if the PROGRAM AE function is selected.

Even if the PROGRAM AE function is selected
You can adjust the exposure.

If you are recording under a discharge tube such as a fluorescent lamp, sodium lamp or mercury lamp
Flickering or changes in colour may occur in the following modes. If this happens, turn the PROGRAM AE function off.
- Soft portrait mode
- Sports lesson mode

Использование функции PROGRAM AE

Примечания

- В режимах прожекторного освещения, спортивных состязаний, а также в пляжном и лыжном режиме невозможно выполнять съемку крупным планом. Это объясняется тем, что Ваша видеокамера настроена для фокусировки только на объекты, находящиеся на среднем и дальнем расстояниях.
- В режиме захода солнца и луны, а также в ландшафтном режиме Ваша видеокамера настроена на фокусировку только на дальние объекты.
- Следующие функции не работают в режиме PROGRAM AE:
  - Медленный затвор
  - Старинное кино
  - Функция перескакивания (только для модели DCR-TRV6E/TRV11E)
- Следующие функции не работают в режиме низкой освещенности:
  - Цифровой эффект
  - Наложение изображения
  - Удаление изображения
  - Заполнение точками
- Коогда функция ночной съемки NIGHTSHOT установлена в положение ON, функция PROGRAM AE не работает. (Индикатор мигает.)
- При съемке в режиме памяти режим низкой освещенности и режим спортивных состязаний не работают. (Индикатор мигает.)

Если команда WHT BAL установлена в положение AUTO в установках меню
Баланс белого будет отрегулирован, даже если выбрана функция PROGRAM AE

Если выбрана функция PROGRAM AE
Вы можете выбрать экспозицию.

Если Вы выполняете запись при использовании флуоресцентной лампы, натриевой лампы или ртутной лампы
В следующих режимах могут возникнуть мерцание или изменения цветности. Если это произойдет, выключите функцию PROGRAM AE.
- Мягкий портретный режим
- Режим спортивных состязаний

Adjusting the exposure manually

You can manually adjust and set the exposure. Adjust the exposure manually in the following cases:
- The subject is backlit
- Bright subject and dark background
- To record dark pictures (e.g. night scenes) faithfully

(1) In the standby, recording or memory mode, press EXPOSURE. The exposure indicator appears.

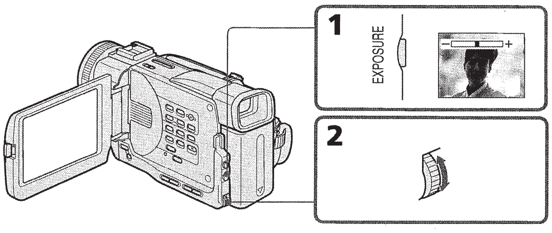
(2) Turn the SEL/PUSH EXEC dial to adjust the brightness.

Регулировка экспозиции вручную

Экспозицию можно отрегулировать и установить вручную. Отрегулируйте экспозицию вручную в следующих случаях:
- Объект на фоне задней подсветки
- Яркий объект на темном фоне
- Для записи темных изображений (например, ночных эпизодов) с большой достоверностью

(1) В режиме ожидания, записи или памяти нажмите кнопку EXPOSURE. Появится индикатор экспозиции.

(2) Поверните диск SEL/PUSH EXEC для регулировки яркости.



To return to the automatic exposure mode

Press EXPOSURE again.

Note
When you adjust the exposure manually, the backlight function does not work.

If you change the PROGRAM AE mode or slide NIGHTSHOT to ON
Your camcorder automatically returns to the automatic exposure mode.

Для возврата в режим автоматической экспозиции

Нажмите кнопку EXPOSURE еще раз.

Примечание
При выполнении регулировки вручную функция задней подсветки не работает.

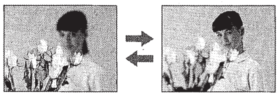
Если Вы измените режим PROGRAM AE или передвинете переключатель NIGHTSHOT в положение ON
Ваша видеокамера автоматически вернется в режим автоматической экспозиции.

Focusing manually

You can gain better results by manually adjusting the focus in the following cases:
- The autofocus mode is not effective when shooting
  - subjects through glass coated with water droplets
  - horizontal stripes
  - subjects with little contrast with backgrounds such as walls and sky
- When you want to change the focus from a subject in the foreground to a subject in the background
- Shooting a stationary subject when using a tripod

Фокусировка вручную

Вы можете достичь лучших результатов путем регулировки фокусировки вручную в следующих случаях:
- Режим автоматической фокусировки является неэффективным при выполнении съемки
  - объектов через стекло, покрытое каплями
  - горизонтальных полос
  - объектов с малой контрастностью на таком фоне, как стена или небо
- Если нужно выполнить изменение фокусировки с объекта на переднем плане на объект на заднем плане
- При выполнении съемки стационарных объектов с использованием штатива

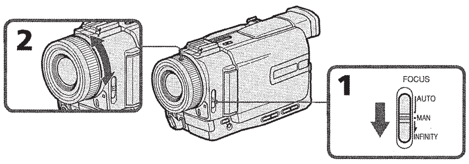


(1) In the standby, recording or memory mode, set FOCUS to MAN. The 🔍 indicator appears.

(2) Turn the focus ring to sharpen focus.

(1) В режиме ожидания, записи или памяти установите переключатель FOCUS в положение MAN. Появится индикатор 🔍.

(2) Поверните кольцо фокусировки для получения четкой фокусировки.



Focusing manually

To return to the autofocus mode
Set FOCUS to AUTO.

To record distant subjects
When you press FOCUS down to INFINITY, the lens focuses on and ▲ indicator appears. When you release FOCUS, your camcorder returns to the manual focus mode. Use this mode when your camcorder focuses on near objects even though you are trying to shoot a distant object.

To focus precisely
It is easier to focus on the subject if you adjust the zoom to shoot at the "W" (wide-angle) after focusing at the "T" (telephoto) position.

When you shoot close to the subject
Focus at the end of the "W" (wide-angle) position.

The following indicators may appear:
▲ When recording a distant subject.
👤 When the subject is too close to focus on.

Фокусировка вручную

Для возвращения в режим автоматической фокусировки
Установите переключатель FOCUS в положение AUTO.

Для съемки удаленных объектов
Если Вы нажмете вниз кнопку FOCUS в положение INFINITY, объектив выполнит фокусировку, и появится индикатор ▲. Если Вы отпустите кнопку FOCUS, видеокамера вернется в режим ручной фокусировки. Используйте этот режим, если видеокамера выполняет фокусировку на ближние объекты, даже если Вы пытаетесь выполнить съемку отдаленного объекта.

Для более точной фокусировки
Очень просто выполнить фокусировку на объект, если отрегулировать трансфокацию для выполнения съемки в положении "W" (широкоугольное) после фокусировки в положении "T" (телефото).

Если Вы выполняете съемку вблизи объекта
Выполните фокусировку в конце положения "W" (широкоугольное).

Могут появиться следующие индикаторы:
▲ При записи удаленных объектов.
👤 Если объект находится слишком близко, чтобы выполнить фокусировку на него.

Playing back a tape with picture effects

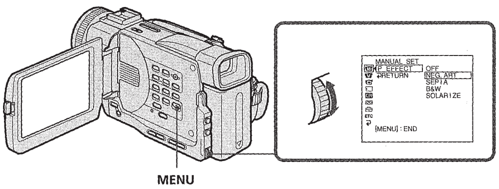
During playback, you can process a scene using the picture effect functions: NEG.ART, SEPIA, B&W, and SOLARIZE.

In the playback or playback pause mode, select the desired picture effect mode in ▣ in the menu settings. (p. 116)
For details of each picture effect function, see page 56.

Воспроизведение ленты с эффектами изображения

Во время воспроизведения можно видоизменять изображение с помощью функций эффектов изображения: NEG.ART, SEPIA, B&W, и SOLARIZE.

В режиме воспроизведения или паузы воспроизведения выберите нужный эффект изображения ▣ в установках меню. (стр. 116)
Подробные сведения по каждой функции цифровых эффектов приведены на стр. 56.



To cancel the picture effect function
Set P EFFECT to OFF in the menu settings.

Notes
- You cannot process externally input scenes using the picture effect function.
- To record pictures that you have processed using the picture effect function, record the pictures on the VCR using your camcorder as a player.

Pictures processed by the picture effect function
Pictures processed by the picture effect function are not output through the i DV IN/OUT jack (DCR-TRV20E) or i DV OUT jack (DCR-TRV6E/TRV11E).

When you set the POWER switch to OFF (CHG) or stop playing back
The picture effect function is automatically cancelled.

Для отмены функции эффектов изображения
Установите команду P EFFECT в положение OFF в установках меню.

Примечания
- Вы не можете видоизменять введенные из внешнего источника изображения с помощью функции эффектов изображения.
- Для записи изображений, которые были видоизменены с помощью функции эффектов изображения, запишите изображения на видеомагнитофон, используя видеокамеру в качестве плейера.

Изображения, видоизмененные с помощью функции эффектов изображения
Изображения, видоизмененные с помощью функции эффектов изображения, не передаются через гнездо входа/выхода i DV IN/OUT (DCR-TRV20E) или гнездо i DV OUT (DCR-TRV6E/TRV11E).

При установке переключателя POWER в положение OFF (CHG) или остановке воспроизведения
Функция эффектов изображения будет автоматически отменена.

Playing back a tape with digital effects

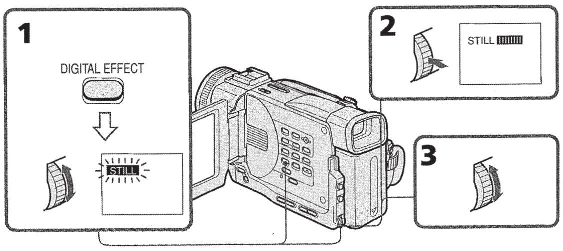
During playback, you can process a scene using the digital effect functions: STILL, FLASH, LUMI., and TRAIL.

(1) In the playback or playback pause mode, press DIGITAL EFFECT and turn the SEL/PUSH EXEC dial until the desired digital effect indicator (STILL, FLASH, LUMI., or TRAIL) flashes.
(2) Press the SEL/PUSH EXEC dial.
The digital effect indicator lights up and the bars appear. In the STILL or LUMI. mode, the picture where you press the SEL/PUSH EXEC dial is stored in memory as a still picture.
(3) Turn the SEL/PUSH EXEC dial to adjust the effect.
For details of each digital effect function, see page 58.

Воспроизведение ленты с цифровыми эффектами

Во время воспроизведения можно видоизменять изображение с помощью функций цифровых эффектов: STILL, FLASH, LUMI. и TRAIL.

(1) В режиме воспроизведения или паузы воспроизведения нажмите кнопку DIGITAL EFFECT и поворачивайте диск SEL/PUSH EXEC до тех пор, пока не начнет мигать индикатор нужного цифрового эффекта (STILL, FLASH, LUMI. или TRAIL).
(2) Нажмите на диск SEL/PUSH EXEC.
Загорится индикатор цифрового эффекта и появятся полосы. В режиме STILL или LUMI. изображение, на котором Вы нажмете диск SEL/PUSH EXEC, будет занесено в память как неподвижное.
(3) Поверните диск SEL/PUSH EXEC для регулировки эффекта.
Подробные сведения по каждой функции цифровых эффектов приведены на стр. 58.



To cancel the digital effect function
Press DIGITAL EFFECT again.

Для отмены функции цифровых эффектов
Нажмите кнопку DIGITAL EFFECT еще раз.

Playing back a tape with digital effects

Notes
- You cannot process externally input scenes using the digital effect function.
- To record pictures that you have processed using the digital effect function, record the pictures on the VCR using your camcorder as a player.

Pictures processed by the digital effect function
Pictures processed by the digital effect function are not output through the i DV IN/OUT jack (DCR-TRV20E) or i DV OUT jack (DCR-TRV6E/TRV11E).

When you set the POWER switch to OFF (CHG) or stop playing back
The digital effect function is automatically cancelled.

Воспроизведение ленты с цифровыми эффектами

Примечания
- Вы не можете видоизменять полученные из внешнего источника изображения с помощью функции цифровых эффектов.
- Для записи изображений, которые были видоизменены с помощью функции цифровых эффектов, запишите изображения на видеомагнитофон, используя видеокамеру в качестве плейера.

Изображения, видоизмененные с помощью функции цифровых эффектов
Изображения, видоизмененные с помощью функции цифровых эффектов, не передаются через гнездо входа/выхода i DV IN/OUT (DCR-TRV20E) или гнездо выхода i DV OUT (DCR-TRV6E/TRV11E).

При установке переключателя POWER в положение OFF (CHG) или остановке воспроизведения
Функция цифровых эффектов будет автоматически отменена.

Enlarging images recorded on tapes – PB ZOOM

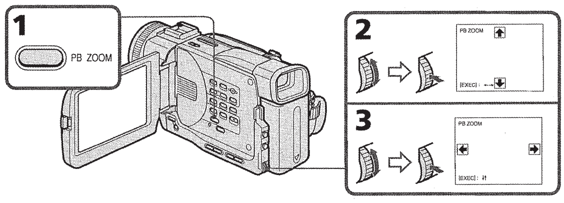
You can enlarge still and moving playback pictures.
You can also dub the enlarged pictures to tapes or copy to "Memory Stick"s.

(1) In the playback or playback pause mode, press PB ZOOM on your camcorder. The image is enlarged, and ↑ ↓ ← → appears on the LCD screen or in the viewfinder.
(2) Turn SEL/PUSH EXEC dial to move the enlarged image, then press the dial.
↑ : The image moves downward
↓ : The image moves upward
(3) Turn SEL/PUSH EXEC dial to move the enlarged image, then press the dial.
→ : The image moves leftward (Turn the dial to upward.)
← : The image moves rightward (Turn the dial to downward.)

Увеличение изображений, записанных на пленках – PB ZOOM

Можно увеличивать неподвижные и подвижные изображения.
Можно также переписывать увеличенные изображения на видеокассеты или копировать на карточки "Memory Stick".

(1) В режиме воспроизведения или паузы воспроизведения нажмите кнопку PB ZOOM на Вашей видеокамере. Изображение увеличивается и на экране ЖКД или видоискателе появляется ↑ ↓ ← →.
(2) Поверните диск SEL/PUSH EXEC для перемещения увеличенного изображения, затем нажмите на диск.
↑ : Изображение перемещается вниз
↓ : Изображение перемещается вверх
(3) Поверните диск SEL/PUSH EXEC для перемещения увеличенного изображения, затем нажмите на диск.
→ : Изображение перемещается влево (Поверните диск вверх.)
← : Изображение перемещается вправо (Поверните диск вниз.)



To cancel the PB ZOOM function
Press PB ZOOM again.

Для выключения функции PB ZOOM
Нажмите кнопку PB ZOOM еще раз.

Enlarging images recorded on tapes – PB ZOOM

Note
You cannot process externally input scenes using the PB ZOOM function with your camcorder.

The following functions do not work in the PB ZOOM function:
– Digital effect

While displaying the menu settings or title
The PB ZOOM function does not work .

The PB ZOOM function is automatically cancelled when you operate the following functions:
– Set the POWER switch to OFF (CHG)
– Stop playback
– Display the menu settings
– Display the title

Pictures in the PB ZOOM
Pictures in the PB ZOOM mode are not output through the i DV IN/OUT jack (DCR-TRV20E) or i DV OUT jack (DCR-TRV6E/TRV11E).

Увеличение изображений, записанных на пленках – PB ZOOM

Примечание
Вы не можете видоизменять полученные от внешнего источника изображения с помощью функции PB ZOOM Вашей видеокамеры.

Следующие функции не работают при использовании функции PB ZOOM:
– Цифровой эффект

При отображении установок меню или заголовка
Функция PB ZOOM не работает.

Функция PB ZOOM будет автоматически отменена при использовании следующих функций:
– Установка переключателя POWER в положение OFF (CHG)
– Остановке воспроизведения
– Отображение установок меню
– Отображение титра

Изображения в режиме PB ZOOM
Изображения в режиме PB ZOOM не передаются через гнездо входа/выхода i DV IN/OUT (DCR-TRV20E) или гнездо выхода i DV OUT (DCR-TRV6E/TRV11E).

Quickly locating a scene using the zero set memory function

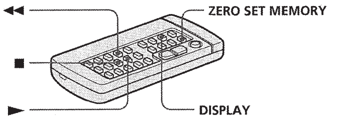
Your camcorder goes forward or backward to automatically stop at a desired scene having a tape counter value of "0:00:00". You can do this with the Remote Commander.

(1) In the playback mode, press DISPLAY.
(2) Press ZERO SET MEMORY at the point you want to locate later. The tape counter shows "0:00:00" and the ZERO SET MEMORY indicator flashes.
(3) Press ■ when you want to stop playback.
(4) Press ◀◀ to rewind the tape to the tape counter's zero point. The tape stops automatically when the tape counter reaches approximately zero. The ZERO SET MEMORY indicator disappears and the time code appears.
(5) Press ►. Playback starts.

Быстрый поиск эпизода с помощью функции памяти нулевой отметки

Ваша видеокамера выполняет перемотку вперед или назад с автоматической остановкой в нужном эпизоде, где показание счетчика ленты равно "0:00:00". Вы можете делать это с помощью пульта дистанционного управления.

(1) В режиме воспроизведения нажмите кнопку DISPLAY.
(2) Нажмите кнопку ZERO SET MEMORY в месте, которое Вы захотите найти позже. Показание счетчика станет равным "0:00:00", и начнет мигать индикатор ZERO SET MEMORY.
(3) Нажмите кнопку ■, если Вы захотите остановить воспроизведение.
(4) Нажмите кнопку ◀◀ для ускоренной перемотки ленты назад кХнулевой точке счетчика ленты. Лента остановится автоматически, если счетчик достигнет нулевой отметки. Индикатор ZERO SET MEMORY исчезнет, и появится код времени.
(5) Нажмите кнопку ►. Начнется воспроизведение.



Notes
- When you press ZERO SET MEMORY before rewinding the tape, the zero set memory function will be cancelled.
- There may be a discrepancy of several seconds from the time code.
- The zero set memory function may not work when there is a blank portion between pictures on a tape.

The zero set memory functions also in the recording standby mode
When you insert a scene in the middle of a recorded tape, press ZERO SET MEMORY at the point you want to end the insertion. Rewind the tape to the insert start point, and start recording. Recording stops automatically at the tape counter zero point. Your camcorder returns to the standby mode.

Примечания
- Если Вы нажмете кнопку ZERO SET MEMORY до начала обратной перемотки ленты, то функция памяти нулевой отметки будет отменена.
- Между кодом времени и действительным временем может быть расхождение в несколько секунд.
- Функция памяти нулевой отметки может не работать в случае, если имеется незаписанный участок между изображениями на ленте.

Функция памяти нулевой отметки работает также в режиме готовности записи
Если Вы вставите эпизод в середине записанной ленты, нажмите кнопку ZERO SET MEMORY в том месте, где Вы хотите закончить вставку эпизода. Перемотайте ленту к месту начала вставки эпизода и начните запись. Запись остановится автоматически в месте нулевой отметки счетчика. Ваша видеокамера вернется в режим ожидания.

Searching the boundaries of recorded tape by title – Title search

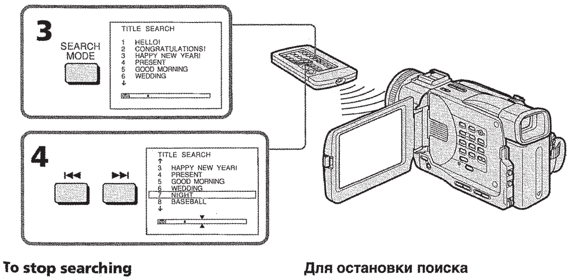
CM only If you use a tape with cassette memory, you can search for the boundaries of recorded tape by title (**Title search**). Use the Remote Commander for this operation.

(1) Set the POWER switch to VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).
(2) Set CM SEARCH in CM to ON in the menu settings (p. 116). Factory setting is ON.
(3) Press SEARCH MODE on the Remote Commander repeatedly, until the TITLE SEARCH indicator appears.
The indicator changes as follows:
TITLE SEARCH → DATE SEARCH → PHOTO SEARCH → PHOTO SCAN → no indicator
(4) Press I◀◀ or ▶▶I on the Remote Commander to select the title for playback.
Your camcorder automatically starts playback of the scene having the title that you selected.

Поиск границ записи на ленте по титру – Поиск титра

CM only Если Вы используете ленту с кассетной памятью, Вы можете выполнять поиск границ записи на ленте по титру (**поиск титра**). Для этой операции используйте пульт дистанционного управления.

(1) Установите переключатель POWER в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).
(2) Установите команду CM SEARCH в положение CM ON в установках меню (стр. 116). Заводской установкой является ON.
(3) Нажимайте кнопку SEARCH MODE на пульте дистанционного управления до тех пор, пока не появится индикатор TITLE SEARCH.
Индикатор будет изменяться следующим образом:
TITLE SEARCH → DATE SEARCH → PHOTO SEARCH → PHOTO SCAN → без индикации
(4) Нажмите кнопку I◀◀ или ▶▶I на пульте дистанционного управления, чтобы выбрать титр для воспроизведения.
Ваша видеокамера автоматически начнет воспроизведение эпизода с выбранным Вами титром.



To stop searching
Press ■.

Для остановки поиска
Нажмите ■.

Searching the boundaries of recorded tape by title – Title search

If you use a tape without cassette memory
You cannot search or superimpose a title.

In the ▭ mark
- The bar in the ▭ mark indicates the present point on the tape.
- The ⧗ mark in the ▭ indicates the actual point you are trying to search.

If a tape has a blank portion between recorded portions
The title search function may not work correctly.

To superimpose a title
See page 108.

Поиск границ записи на ленте по титру – Поиск титра

Если Вы используете ленту без кассетной памяти
Невозможно выполнять поиск или наложение титра.

В индикаторе ▭
- Полоса в индикаторе ▭ указывает текущее место на ленте.
- Метка ⧗ в индикаторе ▭ указывает текущее место поиска.

Если на ленте имеется незаписанный участок между записанными частями
Функция поиска титра может работать неправильно.

Для наложения титра
См. стр. 108.

Searching a recording by date – Date search

You can automatically search for the point where the recording date changes and start playback from that point **(Date search)**. Use a tape with cassette memory for convenience. Use the Remote Commander for this operation.
Use this function to check where recording dates change or to edit the tape at each recording date.

Searching for the date by using cassette memory

You can use this function only when playing back a tape with cassette memory (p. 171).

(1) Set the POWER switch to VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).
(2) Set CM SEARCH in CM to ON in the menu settings (p. 116). Factory setting is ON.
(3) Press SEARCH MODE on the Remote Commander repeatedly, until the DATE SEARCH indicator appears.
The indicator changes as follows:
TITLE SEARCH → DATE SEARCH → PHOTO SEARCH → PHOTO SCAN → no indicator
(4) Press ⏮ or ⏭ on the Remote Commander to select the date for playback.
Your camcorder automatically starts playback at the beginning of the selected date.

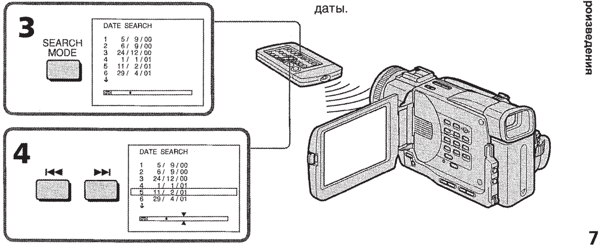
Поиск записи по дате – Поиск даты

Вы можете выполнять автоматически поиск места, где изменяется дата записи, и начинать воспроизведение с этого места (**поиск даты**). Для этого удобно использовать ленту с кассетной памятью. Для этой операции используйте пульт дистанционного управления.
Используйте эту функцию для поиска мест изменения даты записи или для выполнения монтажа во всех этих местах.

Поиск даты с помощью кассетной памяти

Вы можете использовать эту функцию только при воспроизведении ленты с кассетной памятью (стр. 171).

(1) Установите переключатель POWER в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).
(2) Установите команду CM SEARCH в положение CM ON в установках меню (стр. 116). Заводской установкой является ON.
(3) Нажимайте кнопку SEARCH MODE на пульте дистанционного управления до тех пор, пока не появится индикатор DATE SEARCH.
Индикатор будет изменяться следующим образом:
TITLE SEARCH → DATE SEARCH → PHOTO SEARCH → PHOTO SCAN → без индикации
(4) Нажмите кнопку ⏮ или ⏭ на пульте дистанционного управления, чтобы выбрать дату для воспроизведения.
Ваша видеокамера автоматически начнет воспроизведение в начале выбранной даты.



Searching a recording by date – Date search

To stop searching
Press ■.

Note
If one day's recording is less than two minutes, your camcorder may not accurately find the point where the recording date changes.

In the ▭ mark
- The bar in the ▭ mark indicates the present point on the tape.
- The ⧗ mark in the ▭ indicates the actual point you are trying to search.

If a tape has a blank portion between recorded portions
The date search function may not work correctly.

Cassette memory
The tape cassette memory can hold six recording date data. If you search the date among seven or more data, see "Searching for the date without using cassette memory" below.

Searching for the date without using cassette memory

(1) Set the POWER switch to VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).
(2) Set CM SEARCH in CM to OFF in the menu settings (p. 116).
(3) Press SEARCH MODE on the Remote Commander repeatedly, until the DATE SEARCH indicator appears.
The indicator changes as follows:
DATE SEARCH → PHOTO SEARCH → PHOTO SCAN → no indicator
(4) Press ⏮ on the Remote Commander to search for the previous date or press ⏭ on the Remote Commander to search for the next date. Your camcorder automatically starts playback at the point where the date changes. Each time you press ⏮ or ⏭, your camcorder searches for the previous or next date.

To stop searching
Press ■.

Поиск записи по дате – Поиск даты

Для остановки поиска
Нажмите ■.

Примечание
Если продолжительность записи в течение одного дня менее двух минут, видеокамера может неточно найти место, где изменяется дата записи.

В индикаторе ▭
- Полоса в индикаторе ▭ указывает текущее место на ленте.
- Метка ⧗ в индикаторе ▭ указывает текущее место поиска.

Если на ленте имеется незаписанный участок между записанными частями
Функция поиска даты может работать неправильно.

Кассетная память
Кассетная память на ленте позволяет вместить до шести дат записи. Если выполняется поиск даты записи при наличии семи и более дат, см. раздел "Поиск даты без использования кассетной памяти".

Поиск записи по дате без использования кассетной памяти

(1) Установите переключатель POWER в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).
(2) Установите команду CM SEARCH в положение CM OFF в установках меню (стр. 116).
(3) Нажимайте кнопку SEARCH MODE на пульте дистанционного управления до тех пор, пока не появится индикатор DATE SEARCH.
Индикатор будет изменяться следующим образом:
DATE SEARCH → PHOTO SEARCH → PHOTO SCAN → без индикации
(4) Нажмите кнопку ⏮ на пульте дистанционного управления для поиска предыдущей даты или кнопку ⏭ на пульте дистанционного управления для поиска следующей даты. Видеокамера автоматически начнет воспроизведение в том месте, где изменяется дата. Всякий раз при нажатии кнопки ⏮ или ⏭, Ваша видеокамера выполняет поиск предыдущей или следующей даты.

Для остановки поиска
Нажмите ■.

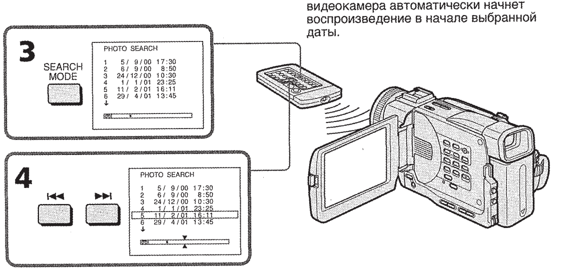
Searching for a photo – Photo search/Photo scan

You can search for a still picture you have recorded on a mini DV tape **(photo search)**. You can also search for still pictures one after another and display each picture for five seconds automatically regardless of cassette memory **(photo scan)**. Use the Remote Commander for these operations.
Use this function to check or edit still pictures.

Searching for a photo by using cassette memory

You can use this function only when playing back a tape with cassette memory (p. 171).

(1) Set the POWER switch to VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E) .
(2) Set CM SEARCH in CM to ON in the menu settings (p. 116). Factory setting is ON.
(3) Press SEARCH MODE on the Remote Commander repeatedly, until the PHOTO SEARCH indicator appears.
The indicator changes as follows:
TITLE SEARCH → DATE SEARCH → PHOTO SEARCH → PHOTO SCAN → no indicator
(4) Press ⏮ or ⏭ on the Remote Commander to select the date for playback. Your camcorder automatically starts playback of the photo having the date that you selected.



To stop searching
Press ■.

Поиск фото – Фотопоиск/ Фотосканирование

Вы можете выполнять поиск неподвижного изображения, записанного на ленте мини DV (**фотопоиск**).
Вы также можете выполнять поиск неподвижных изображений одного за другим и отображать каждое изображение в течение пяти секунд автоматически независимо от кассетной памяти (**фотосканирование**). Для этих операций используйте пульт дистанционного управления.
Используйте эту функцию для проверки или монтажа неподвижных изображений.

Поиск фото с помощью кассетной памяти

Вы можете использовать эту функцию только при воспроизведении ленты с кассетной памятью (стр. 171)

(1) Установите переключатель POWER в положение VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E) .
(2) Установите команду CM SEARCH в положение CM ON в установках меню (стр. 116). Заводской установкой является ON.
(3) Нажимайте кнопку SEARCH MODE на пульте дистанционного управления до тех пор, пока не появится индикатор PHOTO SEARCH.
Индикатор будет изменяться следующим образом:
TITLE SEARCH → DATE SEARCH → PHOTO SEARCH → PHOTO SCAN → без индикации
(4) Нажмите кнопку ⏮ или ⏭ на пульте дистанционного управления, чтобы выбрать дату для воспроизведения. Ваша видеокамера автоматически начнет воспроизведение в начале выбранной даты.

Для остановки поиска
Нажмите ■.

Searching for a photo – Photo search/Photo scan

In the ▭ mark

- The bar in the ▭ mark indicates the present point on the tape.
- The ⧗ mark in the ▭ indicates the actual point you are trying to search.

If a tape has a blank portion between recorded portions
The photo search function may not work correctly.

The available number of photos that can be searched using the cassette memory
The available number is up to 12 photos. However, you can search 13 photos or more using the scanning photo function.

Searching for a photo without using cassette memory

(1) Set the POWER switch to VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E).
(2) Set CM SEARCH in ▣ to OFF in the menu settings (p. 116).
(3) Press SEARCH MODE on the Remote Commander repeatedly, until the PHOTO SEARCH indicator appears.
(4) Press ⏮ or ⏭ on the Remote Commander to select the photo for playback. Each time you press ⏮ or ⏭, your camcorder searches for the previous or next photo.
Your camcorder automatically starts playback of the photo.

To stop searching
Press ■.

Поиск фото – Фотопоиск/Фотосканирование

В индикаторе ▭

- Полоса в индикаторе ▭ указывает текущее место на ленте.
- Метка ⧗ в индикаторе ▭ указывает текущее место поиска.

Если на ленте имеется незаписанный участок между записанными частями
Функция фотопоиска может работать неправильно.

Кооличество фотографий для поиска с помощью кассетной памяти
Максимальное количество - 12 фотографий. Однако можно выполнять поиск 13 и более фото с помощью функции фотосканирования.

Поиск фото без использования кассетной памяти

(1) Установите переключатель POWER в положение VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E).
(2) Установите команду CM SEARCH в положение ▣ OFF в установках меню (стр. 116).
(3) Нажимайте кнопку SEARCH MODE на пульте дистанционного управления до тех пор, пока не появится индикатор PHOTO SEARCH.
(4) Нажмите кнопку ⏮ или ⏭ на пульте дистанционного управления, чтобы выбрать фото для воспроизведения.
Всякий раз при нажатии кнопки ⏮ или ⏭, Ваша видеокамера выполняет поиск предыдущего или следующего фото.
Видеокамера автоматически начнет воспроизведение фото.

Для остановки поиска
Нажмите ■.

Searching for a photo – Photo search/Photo scan

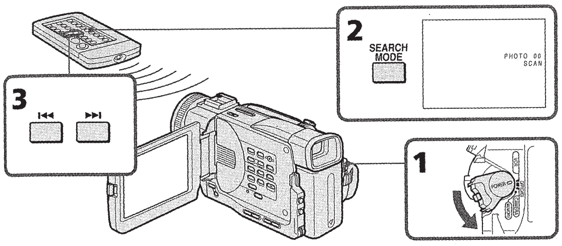
Scanning photo

(1) Set the POWER switch to VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E).
(2) Press SEARCH MODE on the Remote Commander repeatedly, until the PHOTO SCAN indicator appears.
(3) Press ⏮ or ⏭ on the Remote Commander.
Each photo is played back for about five seconds automatically.

Поиск фото – Фотопоиск/Фотосканирование

Сканирование фото

(1) Установите переключатель POWER в положение VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E).
(2) Нажимайте кнопку SEARCH MODE на пульте дистанционного управления до тех пор, пока не появится индикатор PHOTO SCAN.
(3) Нажмите кнопку ⏮ или ⏭ на пульте дистанционного управления.
Каждое фото будет автоматически отображаться в течение приблизительно пяти секунд.



To stop scanning
Press ■.

Для остановки сканирования
Нажмите ■.

— Editing —

Dubbing a tape

Using the A/V connecting cable

Connect your camcorder to the VCR using the A/V connecting cable supplied with your camcorder.
Set the input selector on the VCR to LINE, if available.

(1) Insert a blank tape (or a tape you want to record over) into the VCR, and insert the recorded tape into your camcorder.
(2) Prepare the VCR for recording, then set the input selector to LINE.
Refer to the operating instructions of the VCR.
(3) Set the POWER switch to VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E).
(4) Play back the recorded tape on your camcorder.
(5) Start recording on the VCR.
Refer to the operating instructions of your VCR.

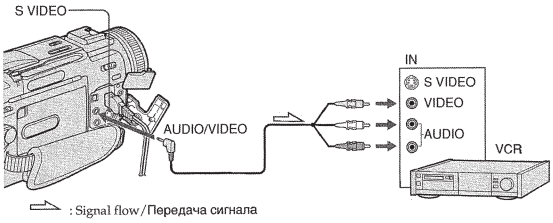
— Монтаж —

Перезапись ленты

Использование соединительного кабеля аудио/видео

Подсоедините видеокамеру к видеомагнитофону с помощью соединительного кабеля аудио/видео, который прилагается к видеокамере. Установите селекторный переключатель входного сигнала на видеомагнитофоне в положение LINE, если таковое имеется.

(1) Вставьте незаписанную ленту (или ленту, на которую хотите выполнить запись) в видеомагнитофон и вставьте записанную ленту в видеокамеру.
(2) Подготовьте видеомагнитофон к записи, затем установите переключатель входов в положение LINE.
Обратитесь к инструкции по эксплуатации видеомагнитофона.
(3) Установите переключатель POWER в положение VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E).
(4) Начните воспроизведение записанной ленты на Вашей видеокамере.
(5) Начните запись на видеомагнитофоне.
Обратитесь к инструкции по эксплуатации видеомагнитофона.



⇨ : Signal flow/Передача сигнала

When you have finished dubbing a tape
Press ■ on both your camcorder and the VCR.

Если Вы закончили перезапись ленты
Нажмите кнопку ■ на видеокамере и на видеомагнитофоне.

Dubbing a tape

Before a dubbing
Set DISPLAY to LCD in the menu settings. (Default setting is LCD.)

Be sure to clear the indicators from the screen
If they are displayed, press the follwoing buttons not to record the indicators on the dubbed tape:

- The DISPLAY button
- The DATA CODE button
- The SEARCH MODE button on the Remote Commander

You can edit on VCRs that support the following systems
8 mm, Hi8, VHS, S-VHS, VHSC, S-VHSC, Betamax, mini DV, DV, or Digital8

If your VCR is a monaural type
Connect the yellow plug of the A/V connecting cable to the video input jack and the white or the red plug to the audio input jack on the VCR or the TV. When the white plug is connected, the left channel audio is output, and the red plug is connected, the right channel audio is output.

Connect using an S video cable (not supplied) to obtain high-quality pictures
With this connection, you do not need to connect the yellow (video) plug of the A/V connecting cable.
Connect an S video cable (not supplied) to the S video jacks of both your camcorder and the VCR. This connection produces higher quality DV format pictures.

Перезапись ленты

Перед перезаписью
Установите параметр DISPLAY в положение LCD в установках меню. (Установкой по умолчанию является LCD.)

Обязательно отключите индикаторы на экране
Если они отображаются, нажмите следующие кнопки, чтобы не записывать индикаторы на перезаписываемую ленту:

- Кнопку DISPLAY
- Кнопку DATA CODE
- Кнопку SEARCH MODE на пульте дистанционного управления

Вы можете выполнять монтаж на видеомагнитофонах, которые поддерживают следующие системы
8 мм, Hi8, VHS, S-VHS, VHSC, S-VHSC, Betamax, мини DV, DV или Digital8

Если Ваш видеомагнитофон монофонического типа
Подсоедините желтый штекер соединительного кабеля аудио/видео к входному гнезду видеосигнала, а белый или красный штекер к входному гнезду аудиосигнала на видеомагнитофоне или телевизоре. Если подсоединен белый штекер, то звук будет подаваться на левый канал, а если подсоединен красный штекер, то звук будет подаваться на правый канал.

Выполните подсоединение с помощью кабеля S видео (не прилагается) для получения высококачественных изображений
При таком соединении Вам не нужно подключать желтый (видео) штекер соединительного кабеля аудио/видео. Подсоедините кабель S видео (не прилагается) к гнездам S видео на видеокамере и видеомагнитофоне.
При данном подсоединении Вы сможете получить высококачественные изображения формата DV.

Dubbing a tape

Using the i.LINK cable (DV connecting cable)

Simply connect the i.LINK cable (DV connecting cable) (not supplied) to i DV IN/OUT (DCR-TRV20E) or i DV OUT (DCR-TRV6E/TRV11E) and to DV IN of the DV products. With digital-to-digital connection, video and audio signals are transmitted in digital form for high-quality editing. You cannot dub the titles, display indicators or the contents of cassette memory.
Set the input selector on the VCR to the DV input position if the VCR is equipped with the input selector.

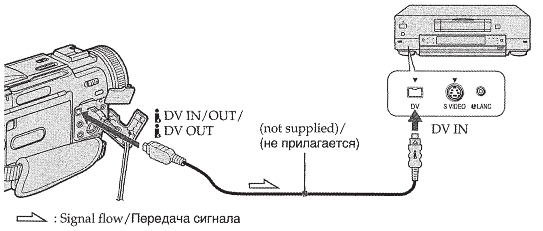
(1) Insert a blank tape (or a tape you want to record over) into the VCR, and insert the recorded tape into your camcorder.
(2) Prepare the VCR for recording.
Set the input selector to LINE. Refer to the operating instructions of the VCR.
(3) Set the POWER switch to VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E) .
(4) Play back the recorded tape on your camcorder.
(5) Start recording on the VCR.

Перезапись ленты

Использование кабеля i.LINK (соединительный кабель DV)

Просто подсоедините кабель i.LINK (соединительный кабель DV) (не прилагается) к гнезду i DV IN/OUT (DCR-TRV20E) или i DV OUT (DCR-TRV6E/TRV11E) и гнезду DV IN аппаратов DV. С помощью соединения цифровым кабелем видео- и аудиосигналы передаются в цифровой форме для последующего высококачественного монтажа. Вы не можете перезаписывать титры, индикаторы на дисплее или содержание кассетной памяти.
Установите селектор входного сигнала на видеомагнитофоне в положение входного сигнала DV, если таковой имеется на видеомагнитофоне.

(1) Вставьте незаписанную ленту (или ленту, на которую хотите выполнить запись) в видеомагнитофон и вставьте записанную ленту в видеокамеру.
(2) Подготовьте видеомагнитофон к записи. Установите селекторный переключатель в положение LINE. Обратитесь к инструкции по эксплуатации видеомагнитофона.
(3) Установите переключатель POWER в положение VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E).
(4) Начните воспроизведение записанной ленты на Вашей видеокамере.
(5) Начните запись на видеомагнитофоне.



When you have finished dubbing a tape

Press ■ on both your camcorder and the connected DV product.

Если Вы закончили перезапись ленты

Нажмите кнопку ■ на видеокамере и на аппарате DV.

Dubbing a tape

You can connect one VCR only using the i.LINK cable (DV connecting cable).

The following functions do not work during digital editing:
- Digital effect
- PB ZOOM
- Picture effect

If you record playback pause picture with the i DV IN/OUT jack (DCR-TRV20E) or i DV OUT (DCR-TRV6E/TRV11E)

The recorded picture becomes rough. And when you play back the picture using the other video equipment, the picture may jitter.

Перезапись ленты

Вы можете подсоединить только один видеомагнитофон с помощью кабеля i.LINK (соединительный кабель DV).

Следующие функции не работают во время цифрового монтажа:
- Цифровой эффект
- Функция PB ZOOM
- Эффект изображения

При записи неподвижного изображения с помощью гнезда i DV IN/OUT (DCR-TRV20E) или гнезда i DV OUT (DCR-TRV6E/TRV11E)

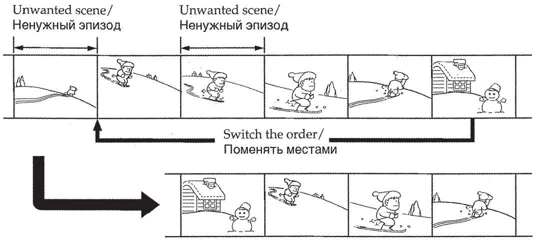
Записываемое изображение будет нечетким. А если Вы будете воспроизводить изображение на другой видеоаппаратуре, то изображение будет подрагивать.

Dubbing only desired scenes – Digital programme editing

You can duplicate selected scenes (programmes) for editing onto a tape without operating the VCR.
Scenes can be selected by frame.

Перезапись только нужных эпизодов – Цифровой монтаж программы

Можно неоднократно перезаписывать на кассету выбранные для монтажа эпизоды (программы) без помощи видеомагнитофона. Эпизоды можно выбирать по кадрам.



Before operating the digital programme editing

Step 1 Connecting the VCR. (p. 80, 82)
Step 2 Setting the VCR for operation. (p. 85, 89)
Step 3 Adjusting the synchronicity of the VCR. (p. 90)

When you dub using the same VCR again, you can skip steps 2 and 3.

Using the digital programme editing function

Operation 1 Making the programme. (p. 93)
Operation 2 Performing a digital programme editing (Dubbing a tape). (p. 95)

Step 1: Connecting the VCR

Connect your camcorder and the VCR as shown on pages 80, 82.
You can connect both an AV cable and an i.LINK cable (DV connecting cable).

Перед началом цифрового монтажа программы

Пункт 1 Подключение видеомагнитофона. (стр. 80, 82)
Пункт 2 Настройка видеомагнитофона для работы. (стр. 85, 89)
Пункт 3 Регулировка синхронности видеомагнитофона. (стр. 90)

Если перезапись производится с помощью того же видеомагнитофона, можно пропустить пункты 2 и 3.

Использование функции цифрового монтажа программы

Действие 1 Составление программы. (стр. 93)
Действие 2 Выполнение цифрового монтажа программы (перезапись кассеты). (Стр. 95)

Пункт 1: Подключение видеомагнитофона

Подключите видеокамеру и видеомагнитофон, как показано на стр. 80, 82.
Для подключения можно использовать оба кабеля - аудио/видео и i.LINK (соединительный кабель DV).

Dubbing only desired scenes – Digital programme editing

Step 2: Setting the VCR for operation – Using the infrared rays emitter

To edit using the VCR, send the control signal by infrared ray to the remote sensor on the VCR.
When you connect using an AV connecting cable, follow the procedures below.

Set the IR SETUP code

(1) Set the POWER switch to VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) on your camcorder.
(2) Turn the power of the connected VCR on, then set the input selector to LINE.
When you connect a video camera recorder, set its POWER switch to VCR/VTR.
(3) Press MENU to display the menu.
(4) Turn the SEL/PUSH EXEC dial to select ETC, then press the dial.
(5) Turn the SEL/PUSH EXEC dial to select EDIT SET, then press the dial.
(6) Turn the SEL/PUSH EXEC dial to select CONTROL, then press the dial.
(7) Turn the SEL/PUSH EXEC dial to select IR, then press the dial.
(8) Turn the SEL/PUSH EXEC dial to select IR SETUP, then press the dial.
(9) Turn the SEL/PUSH EXEC dial to select the IR SETUP code of your VCR (p. 86), then press the dial.

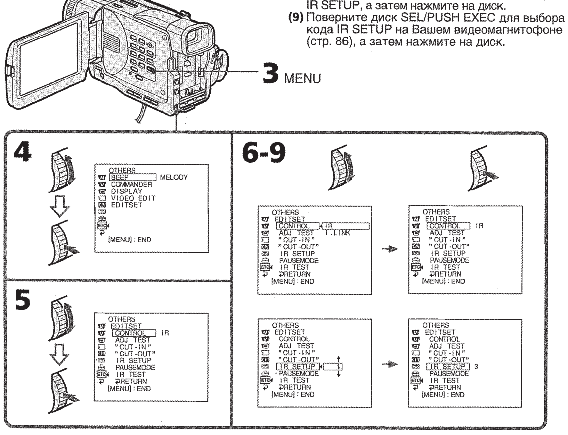
Перезапись только нужных эпизодов – Цифровой монтаж программы

Пункт 2: Настройка видеомагнитофона для работы — при помощи инфракрасных лучей

При выполнении монтажа с использованием видеомагнитофона можно посылать на его ИК-датчик управляющие ИК-сигналы.
Если подключение производится с помощью соединительного аудио/видео кабеля, выполняйте процедуры, указанные ниже.

Установка кода IR SETUP

(1) Установите переключатель POWER в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) на Вашей видеокамере.
(2) Включите питание подключенного видеомагнитофона и установите переключатель входов в положение LINE. При подсоединении видеокамеры установите ее переключатель POWER в положение VCR/VTR.
(3) Нажмите кнопку MENU для отображения меню.
(4) Поверните диск SEL/PUSH EXEC для выбора ETC, а затем нажмите на диск.
(5) Поверните диск SEL/PUSH EXEC для выбора EDIT SET, а затем нажмите на диск.
(6) Поверните диск SEL/PUSH EXEC для выбора CONTROL, а затем нажмите на диск.
(7) Поверните диск SEL/PUSH EXEC для выбора IR, а затем нажмите на диск.
(8) Поверните диск SEL/PUSH EXEC для выбора IR SETUP, а затем нажмите на диск.
(9) Поверните диск SEL/PUSH EXEC для выбора кода IR SETUP на Вашем видеомагнитофоне (стр. 86), а затем нажмите на диск.



About the IR SETUP code

The IR SETUP code is stored in the memory of your camcorder. Be sure to set the correct code, depending on your VCR. Code number 1 is preset at the factory.

Информация о коде IR SETUP

Код IR SETUP содержится в памяти видеокамеры. Установите правильный код, соответствующий используемому видеомагнитофону. На предприятии-изготовителе по умолчанию устанавливается код номер 1.

Brand Фирма-изготовитель	Remote control mode Режим пульта дистанционного управления
Sony	1, 2, 3, 4, 5, 6
Aiwa	47, 53, 54
Akai	62, 50, 74
Alba	73
Aristona	84
Baird	36, 30
Blaupunkt	83, 78
Bush	74
Canon	97
CGM	47, 83, 36
Clatronic	73
Daewoo	26
Ferguson	76
Fisher	73
Funai	80
Goldstar	47
Goodmans	26, 84
Grundig	83, 09
Hitachi	42, 56
ITT/Nokia Instant	36
JVC	12, 21, 15, 11
Kendo	47
Loewe	16, 47, 84
Luxor	89
Mark	26*
Matsui	47,60, 58*
Mitsubishi	28, 29
Nokia	89, 36
Nokia Oceanic	89
Nordmende	76
Okano	60, 62, 63
Orion	70, 58*
Panasonic	16, 78, 96
Philips	83, 84, 86
Phonola	83, 84
Roadstar	47
SABA	76, 21
Samsung	93, 94, 52, 22
Sanyo	36
Schneider	84, 10
SEG	73
Seleco	47, 74
Sharp	89
Siemens	10, 36
Tandberg	26
Telefunken	91, 92
Tensai	73
Thomson	76, 100
Thorn	36, 47
Toshiba	40
Universum	92, 70, 47
W.W. House	47
Watoson	83, 58

* TV/VCR component

* ТВ/видеомагнитофон

Note on remote control mode

You cannot do the assemble editing with some VCRs (for recording) if the remote control mode does not correspond to this VCR (for playing).

Примечание по режиму пульта дистанционного управления

С некоторыми видеомагнитофонами нельзя выполнять монтаж (для записи), если режим пульта дистанционного управления не соответствует этому видеомагнитофону (для воспроизведения).

Setting the modes to cancel the recording pause on the VCR

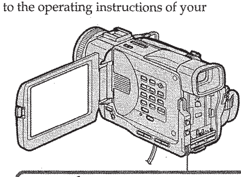
(1) Turn the SEL/PUSH EXEC dial to select PAUSEMODE, then press the dial.

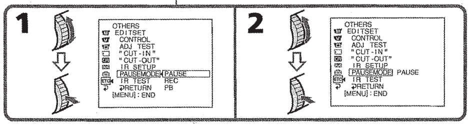
(2) Turn the SEL/PUSH EXEC dial to select the mode to cancel recording pause on the VCR, then press the dial.
The correct button depends on your VCR. Refer to the operating instructions of your VCR.

Установка режимов для отмены паузы при записи на видеомагнитофоне

(1) Поверните диск SEL/PUSH EXEC для выбора PAUSEMODE, а затем нажмите на диск.

(2) Поверните диск SEL/PUSH EXEC, чтобы выбрать режим для отмены паузы при записи на видеомагнитофоне, а затем нажмите на диск.
Выбор правильной кнопки будет зависеть от видеомагнитофона.
Обратитесь к инструкции по эксплуатации видеомагнитофона.





The buttons to cancel recording pause on the VCR

The buttons vary depending on your VCR. To cancel recording pause:
- Select playback pause if the button to cancel recording pause is ❚❚.
- Select recording if the button to cancel recording pause is ●.
- Select playback if the button to cancel recording pause is ▶.

Кнопки для отмены паузы при записи на видеомагнитофоне

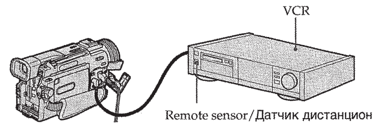
Кнопки отличаются в зависимости от модели видеомагнитофона. Для отмены паузы при записи:
- Выберите режим паузы воспроизведения, если кнопка для отмены паузы записи: ❚❚.
- Выберите режим записи, если кнопка для отмены паузы записи: ●.
- Выберите режим воспроизведения, если кнопка для отмены паузы записи: ▶.

Setting your camcorder and the VCR to face each other

Locate the infrared ray emitter of your camcorder and face it towards the remote sensor of the VCR. Set the devices about 30 cm (11 7/8 in.) apart, and remove any obstacles between the devices.

Установка видеокамеры и видеомагнитофона в направлении друг к другу

Инфракрасный излучатель видеокамеры необходимо направить на датчик дистанционного управления видеомагнитофона.
Установите устройства на расстоянии примерно 30 см и устраните любые препятствия между ними.



Confirming the VCR operation

(1) Insert a recordable tape into the VCR, then set to recording pause.

(2) Turn the SEL/PUSH EXEC dial to select IR TEST, then press the dial.

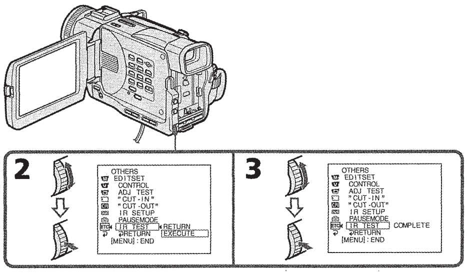
(3) Turn the SEL/PUSH EXEC dial to select EXECUTE, then press the dial.
If the VCR starts recording, the setting is correct.
The EXECUTING indicator flashes on the LCD screen or in the viewfinder. When finished, the indicator changes to COMPLETE.

Подтверждение работы видеомагнитофона

(1) Вставьте кассету для записи в видеомагнитофон, затем установите режим паузы записи.

(2) Поверните диск SEL/PUSH EXEC для выбора IR TEST, а затем нажмите на диск.

(3) Поверните диск SEL/PUSH EXEC для выбора установки EXECUTE, а затем нажмите на диск.
Если видеомагнитофон производит запись, это означает правильную настройку.
На экране ЖКД или в видоискателе мигает индикатор EXECUTING. По окончании, индикатор переключится на COMPLETE.



When the VCR does not operate correctly
- After checking the code in "About the IR SETUP code" set the "IR SETUP" or the "PAUSEMODE" again.
- Place your camcorder at least 30 cm (11 7/8 in.) away from the VCR.

Если видеомагнитофон работает неправильно
- После проверки кода в разделе "Информация о коде IR SETUP." снова выберите в меню команду "IR SETUP" или "PAUSEMODE".
- Установите видеокамеру на расстоянии не менее 30 см от видеомагнитофона.

Step 2: Setting the VCR for operation – Using the i.LINK cable (DV connecting cable)

When you connect using i.LINK cable (DV connecting cable) (not supplied), follow the procedures below.

(1) Set the POWER switch to VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E) on your camcorder .

(2) Turn the power of the connected VCR on, then set the input selector to DV input.
When you connect a digital video camera recorder, set its POWER switch to VCR/VTR.

(3) Press MENU to display the menu.

(4) Turn the SEL/PUSH EXEC dial to select ETC, then press the dial.

(5) Turn the SEL/PUSH EXEC dial to select EDIT SET, then press the dial.

(6) Turn the SEL/PUSH EXEC dial to select CONTROL, then press the dial.

(7) Turn the SEL/PUSH EXEC dial to select i.LINK, then press the dial.

Пункт 2: Настройка видеомагнитофона для работы – Использование кабеля i.LINK (соединительный кабель DV)

При выполнении соединения с помощью кабеля i.LINK (соединительный кабель DV) (не прилагается) выполняйте процедуры, указанные ниже.

(1) Установите переключатель POWER в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) на Вашей видеокамере.

(2) Включите питание на подсоединенном видеомагнитофоне, затем установите селектор входного сигнала в положение входного сигнала DV.
При подсоединении цифровой видеокамеры установите ее переключатель POWER в положение VCR/VTR.

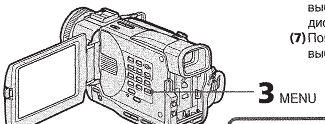
(3) Нажмите кнопку MENU для отображения меню.

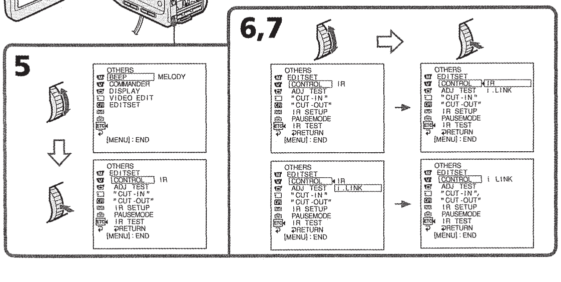
(4) Поверните диск SEL/PUSH EXEC для выбора ETC, а затем нажмите на диск.

(5) Поверните диск SEL/PUSH EXEC для выбора EDIT SET, а затем нажмите на диск.

(6) Поверните диск SEL/PUSH EXEC для выбора CONTROL, а затем нажмите на диск.

(7) Поверните диск SEL/PUSH EXEC для выбора i.LINK, а затем нажмите на диск.





Step 3: Adjusting the synchronicity of the VCR

You can adjust the synchronicity of your camcorder and the VCR.
Have a pen and paper ready for notes.

(1) Set the POWER swtich to VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) on your camcorder.
(2) Insert a blank tape (or a tape you want to record over) into the VCR, then set to recording pause.
When you select i.LINK in CONTROL, the above procedure is not necessary.
(3) Turn the SEL/PUSH EXEC dial to select ADJ TEST, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select EXECUTE, then press the dial.
IN and OUT are recorded on an image for five times each to calculate the numerical values for adjusting the synchronicity.
The EXECUTING indicator flashes on the LCD screen or in the viewfinder. When finished, the indicator changes to COMPLETE.
(5) Rewind the tape in the VCR, then start slow playback.
Take a note of the opening numerical value of each IN and the closing numerical value of each OUT.
(6) Calculate the average of all the opening numerical values of each IN, and the average of all the closing numerical values of each OUT.

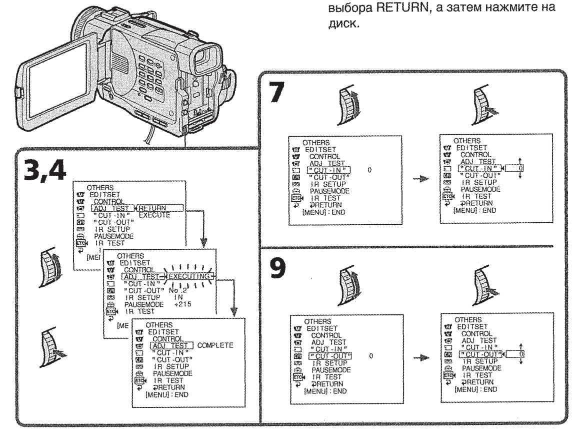
Пункт 3: Регулировка синхронности видеомагнитофона

Можно отрегулировать синхронность видеокамеры и видеомагнитофона.
Приготовьте ручку и бумагу для заметок.

(1) Установите переключатель POWER в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) на Вашей видеокамере.
(2) Вставьте незаписанную ленту (или ленту, на которую хотите выполнить запись) в КВМ, а затем установите режим паузы записи.
При выборе i.LINK в переключателе CONTROL описанная выше процедура является необязательной.
(3) Поверните диск SEL/PUSH EXEC для выбора ADJ TEST, а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора установки EXECUTE, а затем нажмите на диск.
IN и OUT записываются на изображение по пять раз каждая, чтобы рассчитать числовые значения для регулировки синхронности.
На экране ЖКД или в видоискателе мигает индикатор EXECUTING. По окончании, индикатор переключится на COMPLETE.
(5) Перемотайте кассету в видеомагнитофоне на начало, затем включите замедленное воспроизведение.
Обратите внимание на числовое значение открытия каждой метки IN и числовое значение закрытия каждой метки OUT.
(6) Рассчитайте среднее значение всех числовых значений открытия каждой метки IN, а также среднее значение всех числовых значений закрытия каждой метки OUT.

(7) Turn the SEL/PUSH EXEC dial to select "CUT-IN", then press the dial.
(8) Turn the SEL/PUSH EXEC dial to select the average numerical value of IN, then press the dial.
The calculated start position for recording is set.
(9) Turn the SEL/PUSH EXEC dial to select "CUT-OUT", then press the dial.
(10) Turn the SEL/PUSH EXEC dial to select the average numerical value of OUT, then press the dial.
The calculated stop position for recording is set.
(11) Turn the SEL/PUSH EXEC dial to select RETURN, then press the dial.

(7) Поверните диск SEL/PUSH EXEC для выбора "CUT-IN", а затем нажмите на диск.
(8) Поверните диск SEL/PUSH EXEC для выбора среднего числового значения IN, затем нажмите на диск.
Рассчитанное начальное положение для записи установлено.
(9) Поверните диск SEL/PUSH EXEC для выбора "CUT-OUT", а затем нажмите на диск.
(10) Поверните диск SEL/PUSH EXEC для выбора среднего числового значения OUT, затем нажмите на диск.
Рассчитанное конечное положение для записи установлено.
(11) Поверните диск SEL/PUSH EXEC для выбора RETURN, а затем нажмите на диск.



Notes
- If you start recording from the very beginning of the tape, the first few seconds of the tape may not record properly. Be sure to allow about 10 seconds' lead before starting the recording.
- You cannot dub the titles, display indicators, or the contents of cassette memory.
- When you connect with an i.LINK cable (DV connecting cable), you may not be able to operate the dubbing function correctly, depending on the VCR.
Set CONTROL to IR in the menu settings of your camcorder .
- When editing digital video, the operation signals cannot be sent with DIGITAL I/O/ⓛ (LANC).

If you connect using an i.LINK cable (DV connecting cable)
With digital-to-digital connection, video and audio signals are transmitted in digital form for high-quality editing.

When the operations of the VCR do not work with an i.LINK cable (DV connecting cable)
Keep the i.LINK connection, and select IR.

Примечания
- Если запись начинается с самого начала кассеты, то первые несколько секунд на ленту может записываться изображение неудовлетворительного качества. Прежде чем начать запись, необходимо пропустить приблизительно 10 секунд на ленте.
- Вы не можете перезаписывать титры, индикаторы на дисплее или содержание кассетной памяти.
- При подключении с помощью кабеля i.LINK (соединительный кабель DV) функция перезаписи может работать неправильно, в зависимости от видеомагнитофона.
В установках меню видеокамеры установите переключатель CONTROL в положение IR.
- При монтаже цифрового видео сигналы управления невозможно пересылать через DIGITAL I/O/ⓛ (LANC).

Если подключение производится с помощью кабеля i.LINK (соединительный кабель DV)
С помощью соединения цифровым кабелем видео- и аудиосигналы передаются в цифровой форме для последующего высококачественного монтажа.

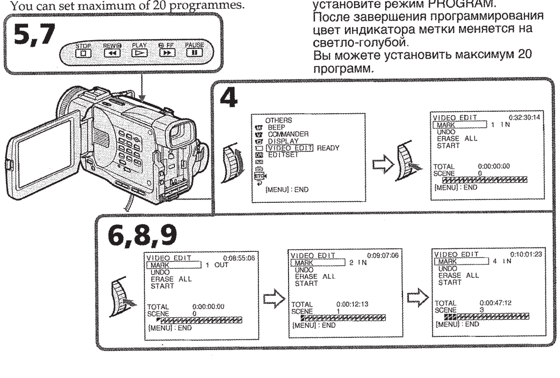
Если управление видеомагнитофоном при помощи кабеля i.LINK не работает (соединительный кабель DV)
Не отключая i.LINK, выберите IR.

Operation 1: Making the Programme

(1) Insert the tape for playback into your camcorder, and insert a tape for recording into the VCR.
(2) Press MENU to display the menu.
(3) Turn the SEL/PUSH EXEC dial to select ETC, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select VIDEO EDIT, then press the dial.
(5) Search for the beginning of the first scene you want to insert using the video operation buttons, then pause playback (p. 39).
(6) Press MARK on the Remote Commander (DCR-TRV11E/TRV20E only), or the SEL/PUSH EXEC dial.
The IN point of the first programme is set, and the top part of the programme mark changes to light blue.
(7) Search for the end of the first scene you want to insert using the video operation buttons, then pause playback.
(8) Press MARK on the Remote Commander (DCR-TRV11E/TRV20E only), or the SEL/PUSH EXEC dial.
The OUT point of the first programme is set, then the bottom part of the programme mark changes to light blue.
(9) Repeat steps 5 to 8, then set PROGRAM.
When the programme is set, the programme mark changes to light blue.
You can set maximum of 20 programmes.

Действие 1: Составление программы

(1) Вставьте кассету, с которой Вы хотите произвести запись, в видеокамеру, а кассету для записи - в видеомагнитофон.
(2) Нажмите кнопку MENU для отображения меню.
(3) Поверните диск SEL/PUSH EXEC для выбора ETC, а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора VIDEO EDIT, а затем нажмите на диск.
(5) С помощью кнопок управления видео найдите начало первого эпизода, который Вы хотите вставить, и включите режим паузы воспроизведения (стр. 39).
(6) Нажмите кнопку MARK на пульте дистанционного управления (только для модели DCR-TRV11E/TRV20E), или на диск SEL/PUSH EXEC.
Место начала IN первого запрограммированного эпизода установлено, и цвет верхнего индикатора метки программы меняется на светло-голубой.
(7) С помощью кнопок управления видео найдите конец первого эпизода, который Вы хотите вставить, и включите режим паузы воспроизведения.
(8) Нажмите кнопку MARK на пульте дистанционного управления (только для модели DCR-TRV11E/TRV20E), или на диск SEL/PUSH EXEC.
Место окончания OUT первого запрограммированного эпизода установлено, и цвет нижнего индикатора метки программы меняется на светло-голубой.
(9) Повторяйте пункты с 5 по 8, затем установите режим PROGRAM.
После завершения программирования цвет индикатора метки меняется на светло-голубой.
Вы можете установить максимум 20 программ.



Dubbing only desired scenes – Digital programme editing

Erasing the programme you have set

Erase OUT first and then IN from of the last programme.

(1) Turn the SEL/PUSH EXEC dial to select UNDO, then press the dial.
(2) Turn the SEL/PUSH EXEC dial to select EXECUTE, then press the dial.
The last set programme mark flashes, then the setting is cancelled.

To cancel erasing
Select RETURN in step 2, then press the dial.

Erasing all programmes

(1) Select VIDEO EDIT in the menu settings. Turn the SEL/PUSH EXEC dial to select ERASE ALL, then press the dial.
(2) Turn the SEL/PUSH EXEC dial to select EXECUTE, then press the dial.
All the programme marks flash, then the settings are cancelled.

To cancel erasing all programmes
Select RETURN in step 2, then press the dial.

To cancel a programme you have set
Press MENU.
The programme is stored in memory until the tape is ejected.

On a blank portion of the tape
You cannot set IN or OUT on a blank portion of the tape.

If there is a blank portion between IN and OUT on the tape
The total time code may not be displayed correctly.

Перезапись только нужных эпизодов – Цифровой монтаж программы

Удаление из программы последнего запрограммированного эпизода

Сначала удалите метку OUT, а затем метку IN последнего запрограммированного эпизода.

(1) Поверните диск SEL/PUSH EXEC для выбора UNDO, а затем нажмите на диск.
(2) Поверните диск SEL/PUSH EXEC для выбора установки EXECUTE, а затем нажмите на диск.
Индикатор последнего запрограммированного эпизода начнет мигать, и установки для этого эпизода сбросятся.

Для отмены удаления
Выберите RETURN в пункте 2, затем нажмите на диск.

Удаление из программы всех запрограммированных эпизодов

(1) Выберите VIDEO EDIT в установках меню. Поверните диск SEL/PUSH EXEC для выбора ERASE ALL, а затем нажмите на диск.
(2) Поверните диск SEL/PUSH EXEC для выбора установки EXECUTE, а затем нажмите на диск.
Все индикаторы запрограммированных эпизодов начнут мигать, и установки сбросятся.

Для отмены удаления всех запрограммированных эпизодов
Выберите RETURN в пункте 2, затем нажмите на диск.

Для отмены программы
Нажмите кнопку MENU.
Программа хранится в памяти до момента извлечения кассеты из камеры.

На незаписанном участке ленты
Нельзя установить метки начала IN или окончания OUT на незаписанной части ленты.

Если на ленте есть незаписанный участок между пометками IN и OUT
Код времени может отображаться неправильно.

Dubbing only desired scenes – Digital programme editing

Operation 2: Performing a digital programme editing (Dubbing a tape)

Make sure your camcorder and VCR are connected, and that the VCR is set to recording pause. When you use an i.LINK cable (DV connecting cable) the following procedure is not necessary.
When you use a digital video camera recorder, set its POWER switch to VCR.

(1) Select VIDEO EDIT. Turn the SEL/PUSH EXEC dial to select START, then press the dial.
(2) Turn the SEL/PUSH EXEC dial to select EXECUTE, then press the dial.
Search for the beginning of the first programme, then start dubbing.
The programme mark indicator flashes.
The SEARCH indicator appears during search, and the EDIT indicator appears during edit on the LCD screen or in the viewfinder.
The PROGRAM indicator changes to light blue after dubbing is complete.

When the dubbing ends, your camcorder and the VCR automatically stop.

To stop dubbing
Press ■ using the video operation buttons.

To end the programme editing function
Your camcorder stops when the dubbing is complete. Then the display returns to VIDEO EDIT in the menu settings.
Press MENU to end the programme editing function.

You cannot record on the VCR when:
- The cassette is not inserted.
- The tape has run out.
- The write-protect tab is set to expose the red mark.
- The IR SETUP code is not correct. (When IR is selected.)
- The button to cancel recording pause is not correct (When IR is selected.) (see page 87).

NOT READY appears on the LCD screen when:
- The programme to operate the digital programme editing has not made.
- i.LINK is selected but an i.LINK cable (DV connecting cable) is not connected.
- The power of the connected VCR is not turned on. (when you set i.LINK).

Перезапись только нужных эпизодов – Цифровой монтаж программы

Действие 2: Выполнение цифрового монтажа программы (перезапись кассеты)

Убедитесь, что видеокамера подключена к видеомагнитофону, а видеомагнитофон включен в режим паузы при записи.
При использовании кабеля i.LINK (соединительный кабель DV) описанная ниже процедура является необязательной.
При записи на цифровую видеокамеру установите ее переключатель POWER в положение VCR.

(1) Выберите VIDEO EDIT. Поверните диск SEL/PUSH EXEC для выбора START, а затем нажмите на диск.
(2) Поверните диск SEL/PUSH EXEC для выбора установки EXECUTE, а затем нажмите на диск.
Найдите начало первого запрограммированного эпизода и начните перезапись.
Замигает индикатор метки программы.
Индикатор SEARCH появляется во время поиска, а индикатор EDIT появляется во время монтажа на экране ЖКД или в видоискателе.
После завершения перезаписи цвет индикатора PROGRAM меняется на светло-голубой.

Когда заканчивается перезапись, видеокамера и видеомагнитофон автоматически останавливаются.

Для остановки перезаписи
Нажмите ■ с помощью кнопок управления видео.

Для завершения функции монтажа программы
Видеокамера останавливается после завершения перезаписи. Затем на дисплее снова появляется команда VIDEO EDIT в установках меню.
Нажмите кнопку MENU для завершения функции монтажа программы.

На видеомагнитофон не удастся произвести запись, если:
- Не вставлена кассета.
- Закончилась лента.
- Лепесток защиты от записи установлен так, что видна красная метка.
- Неправильный код IR SETUP. (Когда выбран IR.)
- Кнопка для отмены паузы при записи является неверной (Когда выбран IR.) (см. стр. 87).

Надпись NOT READY появляется на экране ЖКД, если:
- Не была составлена программа управления цифровым монтажом программы.
- Выбран i.LINK, но кабель i.LINK (соединительный кабель DV) не подключен.
- Подключенный видеомагнитофон не включен (при установке i.LINK).

Using with analog video unit and PC – Signal convert function

– DCR-TRV20E only

You can convert analog video signals into digital video signals via your camcorder connected to a PC and analog video unit.

Analog video signals → Digital video signals
You can capture images and sound from an analog video unit connecting a PC which has the i.LINK (DV) jack to your camcorder.

(1) Set the POWER switch to VCR.
(2) Set DISPLAY in ETC to LCD in the menu settings.
(3) Set A/V → DV OUT in VT to ON in the menu settings.
(4) Start playback on the analog video unit slightly ahead of the point from which you want to start capturing images.
(5) Start capturing procedures on your PC. The operation procedures depend on your PC and the software which you use.
For details on how to capture images, refer to the instruction manual of PC and software.

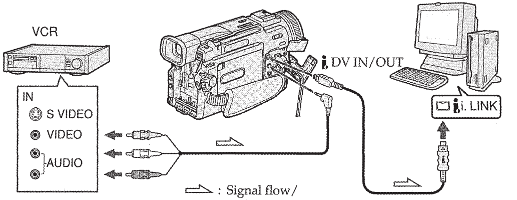
Использование с аналоговыми видеоустройствами и ПК – функция преобразования сигнала

– Только для модели DCR-TRV20E

Можно производить преобразование аналоговых видеосигналов в цифровые видеосигналы через Вашу видеокамеру, подключенную к ПК и аналоговому видеоустройству.

Аналоговые видеосигналы → Цифровые видеосигналы
Подключив к Вашей видеокамере ПК с разъемом i.LINK (DV), можно записывать отдельные кадры и звук с аналогового видеоустройства.

(1) Установите переключатель POWER в положение VCR.
(2) Установите параметр DISPLAY в ETC в положение LCD в установках меню.
(3) Установите команду A/V → DV OUT в положение VT ON в установках меню.
(4) Включите режим воспроизведения на аналоговом видеоустройстве немного раньше того места, с которого нужно начать запись кадров.
(5) Начните запись кадров на Вашем ПК. Порядок действий при этом зависит от Вашего ПК и используемого программного обеспечения.
Более подробную информацию о записи кадров см. в инструкциях по эксплуатации ПК и программного обеспечения.



⇨ : Signal flow/
Передача сигнала

After capturing images and sound
Stop capturing procedures on your PC, and stop the playback on the analog video unit.

Notes
- You need to install software which can exchange video signals.
- Depending on the condition of the analog video signals, the PC may not be able to output the images correctly when you convert analog video signals into digital video signals via your camcorder. Depending on the analog video unit, the image may contain noise or incorrect colours.

После записи кадров и звука
Прекратите процедуру записи на ПК и остановите воспроизведение на аналоговом видеоустройстве.

Примечания
- Вам нужно установить программное обеспечение, обеспечивающее обмен видеосигналами.
- В зависимости от качества аналогового видеосигнала, ПК может отображать кадры неправильно после преобразования видеокамерой аналоговых видеосигналов в цифровые. В зависимости от аналогового видеоустройства, изображение может быть расплывчатым или с неправильной цветопередачей.

Recording video or TV programmes

– DCR-TRV20E only
Using the A/V connecting cable

You can record a tape from another VCR or a TV programme from a TV that has video/audio outputs. Use your camcorder as a recorder.

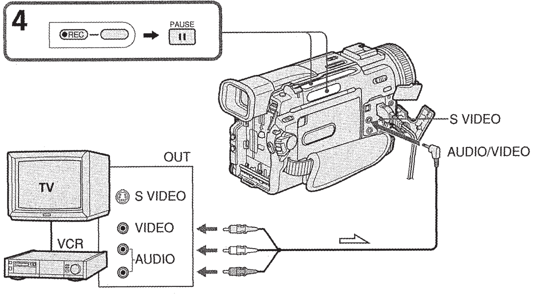
(1) Insert a blank tape (or a tape you want to record over) into your camcorder. If you are recording a tape from the VCR, insert a recorded tape into the connected VCR.
(2) Set the POWER switch to VCR on your camcorder.
(3) Set DISPLAY in ETC to LCD in the menu settings.
(4) Press ● REC and the button on its right simultaneously on your camcorder, then immediately press ❚❚ on your camcorder.
(5) Press ► on the connected VCR to start playback if you record a tape from a VCR. Select a TV programme if you record from a TV. The picture from a TV or VCR appears on the LCD screen or in the viewfinder.
(6) Press ❚❚ on your camcorder at the scene where you want to start from.

Запись видео или телепрограмм

– Только для модели DCR-TRV20E
Использование соединительного кабеля аудио/видео

Можно выполнить запись на ленту с другого видеомагнитофона или записать телевизионную программу с телевизора, который имеет видео/аудио выходы. Используйте видеокамеру в качестве записывающего устройства.

(1) Вставьте чистую ленту (или ленту, на которую нужно выполнить запись) в видеокамеру. При записи ленты с видеомагнитофона вставьте записанную ленту в видеомагнитофон.
(2) Установите переключатель POWER в положение VCR на Вашей видеокамере.
(3) Установите параметр DISPLAY в ETC в положение LCD в установках меню.
(4) Одновременно нажмите кнопку ● REC и кнопку справа от нее на видеокамере, затем сразу нажмите кнопку ❚❚ на видеокамере.
(5) Нажмите кнопку ► на видеомагнитофоне для начала воспроизведения, если запись выполняется с видеомагнитофона. Выберите телевизионную программу, если запись выполняется с телевизора. Изображение с телевизора или видеомагнитофона появится на экране ЖКД или в видоискателе.
(6) Нажмите кнопку ❚❚ на видеокамере в том месте, где нужно начать запись.



⇨ : Signal flow/Передача сигнала

When you have finished dubbing a tape

Press ■ on both your camcorder and the VCR.

Using the Remote Commander

In step 4, press ● REC and MARK simultaneously, then immediately press ▌▌. And in step 6, press ▌▌ at the scene where you want to start recording from.

Note

When the picture from the VCR or TV does not appear on the LCD screen or in the viewfinder, check if the A/V connecting cable is connected to the output jack for playback.

If your VCR is a monaural type

Connect the yellow plug of the A/V connecting cable to the video output jack and the white or the red plug to the audio output jack on the VCR or the TV. When the white plug is connected, the left channel audio is output, and the red plug is connected, the right channel audio is output.

Connect using an S vido cable (not supplied) to obtain high-quality pictures

With this connection, you do not need to connect the yellow (video) plug of the A/V connecting cable.

Connect an S video cable (not supplied) to the S (S1) video jacks of both your camcorder and the VCR.

This connection produces higher quality DV format pictures.

Если Вы закончили перезапись ленты

Нажмите кнопку ■ на видеокамере и на видеомагнитофоне.

Использование пульта дистанционного управления

В пункте 4 одновременно нажмите кнопку ● REC и кнопку MARK, затем сразу нажмите кнопку ▌▌. В пункте 6 нажмите кнопку ▌▌ в том месте, где нужно начать запись.

Примечание

Когда изображение с видеомагнитофона или телевизора не появляется на экране ЖКД или в видоискателе, проверьте, подключен ли соединительный кабель аудио/видео к выходному гнезду видеомагнитофона или телевизора.

Если Ваш видеомагнитофон монофонического типа

Подсоедините желтый штекер соединительного кабеля аудио/видео к выходному гнезду видеосигнала, а белый или красный штекер - к выходному гнезду аудиосигнала на видеомагнитофоне или телевизоре. Если подсоединен белый штекер, то звук будет подаваться на левый канал, а если подсоединен красный штекер, то звук будет подаваться на правый канал.

Соединение с помощью видеокабеля S (не входит в комплект) для получения высококачественных изображений

При таком соединении Вам не нужно подключать желтый (видео) штекер соединительного кабеля аудио/видео.

Подсоедините видеокабель S (не входит в комплект) к видеогнездам S (S1) на видеокамере и видеомагнитофоне.

При данном подсоединении Вы сможете получить высококачественные изображения формата DV.

Using the i.LINK cable (DV connecting cable)

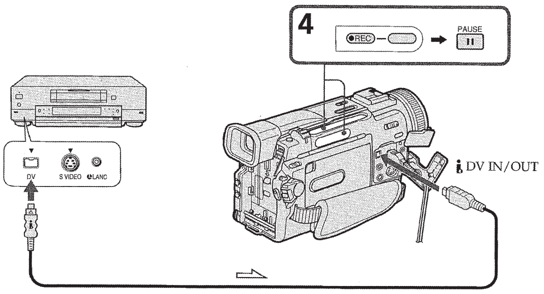
Simply connect the i.LINK cable (DV connecting cable) (not supplied) to i DV IN/OUT and to DV IN/OUT of the DV products. With digital-to-digital connection, video and audio signals are transmitted in digital form for high-quality editing.

(1) Insert a blank tape (or a tape you want to record over) into your camcorder, and insert the recorded tape into the connected VCR.
(2) Set the POWER switch to VCR on your camcorder.
(3) Set DISPLAY in ETC to LCD in the menu settings.
(4) Press ● REC and the button on its right simultaneously on your camcorder, then immediately press ▌▌ on your camcorder.
(5) Press ► on the connected VCR to start playback. The picture to be recorded appears on the LCD screen or in the viewfinder.
(6) Press ▌▌ on your camcorder at the scene where you want to start from.

Использование кабеля i.LINK (соединительный кабель DV)

Просто подсоедините кабель i.LINK (соединительный кабель DV) (не входит в комплект) к гнезду i DV IN/OUT и гнезду DV IN/OUT аппаратов DV. С помощью соединения цифровым кабелем видео- и аудиосигналы передаются в цифровой форме для последующего высококачественного монтажа.

(1) Вставьте незаписанную ленту (или ленту, на которую нужно выполнить запись) в видеокамеру, а записанную ленту - в видеомагнитофон.
(2) Установите переключатель POWER в положение VCR на Вашей видеокамере.
(3) Установите параметр DISPLAY в ETC в положение LCD в установках меню.
(4) Одновременно нажмите кнопку ● REC и кнопку справа от нее на видеокамере, затем сразу нажмите кнопку ▌▌ на видеокамере.
(5) Нажмите кнопку ► на видеомагнитофоне для начала воспроизведения. Записываемое изображение появится на экране ЖКД или в видоискателе.
(6) Нажмите кнопку ▌▌ на видеокамере в том месте, где нужно начать запись.



⇨ : Signal flow/Передача сигнала

When you have finished dubbing a tape

Press ■ on both your camcorder and the VCR.

Using the Remote Commander

In step 4, press ● REC and MARK simultaneously, then immediately press ▌▌. And in step 6, press ▌▌ at the scene where you want to start recording from.

You can connect one VCR only using the i.LINK cable (DV connecting cable).

When you dub a picture in digital form

The colour of the display may be uneven. However this does not affect the dubbed picture.

If you record playback pause picture with the i DV IN/OUT jack

The recorded picture becomes rough. And when you play back the picture using your camcorder, the picture may jitter.

Before recording

Make sure if the DV IN indicator appears on the LCD screen or in the viewfinder. The DV IN indicator may appear on both equipment.

Если Вы закончили перезапись ленты

Нажмите кнопку ■ на видеокамере и на видеомагнитофоне.

Использование пульта дистанционного управления

В пункте 4 одновременно нажмите кнопку ● REC и кнопку MARK, затем сразу нажмите кнопку ▌▌. В пункте 6 нажмите кнопку ▌▌ в том месте, где нужно начать запись.

С помощью кабеля i.LINK (соединительный кабель DV) можно подсоединить только один видеомагнитофон.

При перезаписи изображения в цифровом виде

Цвет изображения может быть необычным. Однако это не влияет на перезапись изображения.

При записи неподвижного изображения с помощью гнезда i DV IN/OUT

Записываемое изображение будет нечетким. При воспроизведении изображения на данной видеокамере оно может дрожать.

Перед записью

Убедитесь, что на экране ЖКД и в видоискателе появился индикатор DV IN. Индикатор DV IN может появиться на обоих аппаратах.

Inserting a scene a from VCR – Insert editing

Вставка эпизода с видеомагнитофона – Монтаж вставки

– DCR-TRV20E only

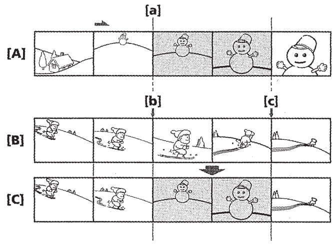
You can insert a new scene from a VCR onto your originally recorded tape by specifying the insert start and end points. Use the Remote Commander for this operation. Connections are the same as on page 97 or 99.

Insert a cassette containing the desired scene to insert into the VCR.

– Только для модели DCR-TRV20E

Можно вставить новый эпизод с видеомагнитофона на уже записанную ленту, указав места его начала и окончания. Для этой операции используйте пульт дистанционного управления. Данные соединения аналогичны описанным на стр. 97 или 99.

Вставьте кассету с необходимым эпизодом для вставки в видеомагнитофон.



[A]:	A tape that contains the scene to be superimposed
[B]:	A tape before editing
[C]:	A tape after editing

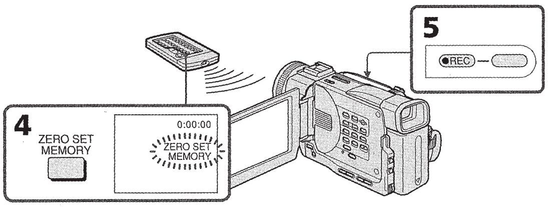
[A]:	Лента, содержащая эпизод для наложения
[B]:	Лента перед монтажом
[C]:	Лента после монтажа

Inserting a scene a from VCR – Insert editing

(1) Set the POWER switch to VCR on your camcorder.
(2) On the connected VCR, locate just before the insert start point **[a]**, then press ❚❚ to set the VCR to the playback pause mode.
(3) On your camcorder, locate the insert end point **[c]** by pressing ◀◀ or ▶▶. Then press ❚❚ to set it to the playback pause mode.
(4) Press ZERO SET MEMORY on the Remote Commander. The ZERO SET MEMORY indicator flashes and the end point of the insert is stored in memory. The tape counter shows "0:00:00."
(5) On your camcorder, locate the insert start point **[b]** by pressing ◀◀, then press ● REC and the button on its right simultaneously.
(6) First press ❚❚ on the connected VCR, and after a few seconds press ❚❚ on your camcorder to start inserting new scene.
Inserting automatically stops near the zero point on the tape counter. Your camcorder automatically returns to the recording pause mode.

Вставка эпизода с видеомагнитофона – Монтаж вставки

(1) Установите переключатель POWER в положение VCR на Вашей видеокамере.
(2) На видеомагнитофоне найдите место, где будет вставлен эпизод **[a]**, затем нажмите кнопку ❚❚ для установки видеомагнитофона в режим паузы воспроизведения.
(3) На видеокамере найдите конец вставляемого эпизода **[c]**, нажав кнопку ◀◀ или ▶▶. Затем нажмите кнопку ❚❚ для установки ее в режим паузы воспроизведения.
(4) Нажмите кнопку ZERO SET MEMORY на пульте дистанционного управления. Индикатор ZERO SET MEMORY начнет мигать, а место окончания вставки будет сохранено в памяти. Показание счетчика станет равным “0:00:00.”
(5) На видеокамере найдите место начала вставляемого эпизода **[b]**, нажав кнопку ◀◀, затем одновременно нажмите кнопку ● REC и кнопку справа от нее.
(6) Сначала нажмите кнопку ❚❚ на видеомагнитофоне и, спустя несколько секунд, кнопку ❚❚ на видеокамере для начала вставки новой сцены.
Вставка остановится автоматически в месте нулевой отметки счетчика. Видеокамера автоматически вернется в режим паузы записи.



To change the insert end point

Press ZERO SET MEMORY again after step 5 to erase the ZERO SET MEMORY indicator and begin from step 3.

Для изменения места окончания вставки

Снова нажмите кнопку ZERO SET MEMORY после пункта 5 для удаления индикатора ZERO SET MEMORY и начните с пункта 3.

Inserting a scene a from VCR – Insert editing

Using the Remote Commander

In step 5, press ● REC and MARK simultaneously, then immediately press ❚❚. And in step 6, press ❚❚ at the scene where you want to start recording from.

Note

The picture and sound recorded on the portion between the insert start and end points will be erased when you insert the new scene.

If you insert scenes on the tape recorded with other camcorder (including other DCR-TRV20E)

The picture and sound may be distored. We recommend that you insert scenes on a tape recorded with your camcorder.

When the inserted picture is played back

The picture and sound may be distored at the end of the inserted portion. This is not a malfunction.
The picture and sound at the start point and the end point may be distored in the LP mode.

To insert a scene without setting the insert end point

Skip steps 3 and 4. Press ■ when you want to stop inserting.

Вставка эпизода с видеомагнитофона – Монтаж вставки

Использование пульта дистанционного управления

В пункте 5 одновременно нажмите кнопку ● REC и кнопку MARK, затем сразу нажмите кнопку ❚❚. В пункте 6 нажмите кнопку ❚❚ в том месте, где нужно начать запись.

Примечание

Изображение и звук, записанные на ленте между местами начала и окончания вставки, будут стерты при вставке нового эпизода.

При вставке эпизодов на ленту, записанную на другой видеокамере (включая другие модели DCR-TRV20E)

Изображение и звук могут искажаться. Рекомендуется вставлять эпизоды на пленку, записанную с помощью данной видеокамеры.

При воспроизведении вставленного изображения

Изображение и звук могут искажаться в конце вставленного эпизода. Однако это не является неисправностью.
Изображение и звук в режиме LP могут искажаться в начале и конце вставленного эпизода.

Для вставки эпизода без указания места окончания вставки

Пропустите пункты 3 и 4. Нажмите кнопку ■, когда нужно остановить вставку.

Audio dubbing

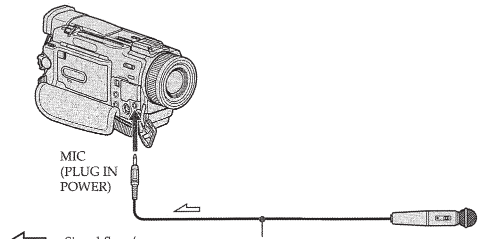
You can record an audio sound to add to the original sound on a tape by connecting audio equipment or a microphone. If you connect the audio equipment, you can add sound to your recorded tape by specifying starting and ending points. The original sound will not be erased.
Use the Remote Commander for this operation.

Аудиоперезапись

Вы можете записывать аудиосигнал в дополнение к первоначальному звуку на ленте, подсоединив аудиоаппаратуру или микрофон. Если Вы подсоедините аудиопаппарат, Вы можете добавить звук на Вашу записанную ленту путем указания точек начала и окончания. Первоначальный при этом звук не будет стерт.
Для этой операции используйте пульт дистанционного управления.

Connecting the microphone with the MIC jack

Подсоединение микрофона к гнезду MIC



⊲ : Signal flow/ Передача сигнала

Microphone (not supplied)/Микрофон (не прилагается)

You can check the recorded picture and sound by connecting the AUDIO/VIDEO jack to a TV.
The recorded sound is not output from a speaker. Check the sound by using the TV or headphones.

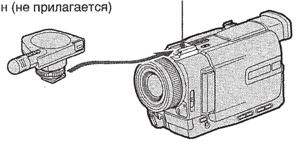
Вы можете проверить записанное изображение и звук, подсоединив гнездо AUDIO/VIDEO к телевизору.
Записанный звук не подается на акустическую систему. Проверьте звук с помощью телевизора или головных телефонов.

Connecting the microphone with the intelligent accessory shoe

Подсоединение микрофона с помощью держателя для вспомогательных принадлежностей

Intellingent Accessory Shoe/Держатель для вспомогательных принадлежностей

Microphone (not supplied)/ Микрофон (не прилагается)



Audio dubbing

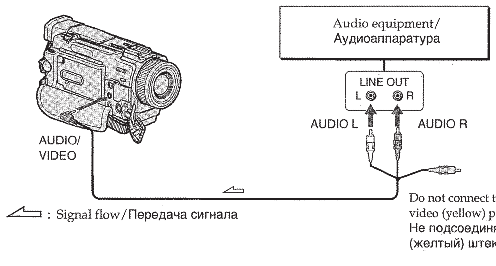
Аудиоперезапись

Dubbing with the AUDIO/VIDEO jack

– DCR-TRV20E only

Перезапись с помощью гнезда AUDIO/VIDEO

– Только для модели DCR-TRV20E



⊲ : Signal flow/Передача сигнала

Do not connect the video (yellow) plug./
Не подсоединяйте видео (желтый) штекер.

Dubbing with the built-in microphones

No connection is necessary.

Notes

- The picture is not output from the AUDIO/ VIDEO jack. Check the recorded picture on the LCD screen or in the viewfinder, as well as check the recorded sound by using headphones.
- When dubbing with the built-in microphone or an external one, you can check the recorded picture on the LCD screen, in the viewfinder, or on the screen of equipment connected with the S VIDEO jack, and can check the recorded sound by using headphones.

Перезапись с помощью встроенного микрофона

Никакие подсоединения не требуются.

Примечания

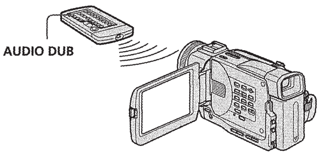
- Сигналы изображения не будут поступать от гнезда AUDIO/VIDEO. Проверяйте записываемое изображение на экране ЖКД или в видоискателе, а записываемый звук с помощью головных телефонов.
- При перезаписи с использованием встроенного или внешнего микрофона можно проверять записываемое изображение на экране ЖКД, в видоискателе или на экране аппаратуры, подключенной с помощью гнезда S VIDEO, а также записываемый звук, используя головные телефоны.

Adding an audio sound on a recorded tape

(1) Insert your recorded tape into your camcorder.
(2) Set the POWER switch to VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E) on your camcorder.
(3) Locate the recording start point by pressing ►. Then press ❚❚ at the point where you want to start recording to set your camcorder to playback pause mode.
(4) Press AUDIO DUB on the Remote Commander.
The green ⇕ ❚❚ indicator appears on the LCD screen or in the viewfinder.
(5) Press ❚❚ on the Remote Commander or on your camcorder, and at the same time, start playing back the audio you want to record. The new sound is recorded in stereo 2 (ST2) during playback.
(6) Press ■ on the Remote Commander at the point where you want to stop recording.

Добавление звукового сигнала на записанную ленту

(1) Вставьте Вашу записанную ленту в видеокамеру
(2) Установите переключатель POWER в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) на Вашей видеокамере.
(3) Найдите место начала записи, нажимая кнопку ►. Затем нажмите кнопку ❚❚ в том месте, где Вы хотите начать запись, для установки видеокамеры в режим паузы воспроизведения.
(4) Нажмите кнопку AUDIO DUB на пульте дистанционного управления.
Зеленый индикатор ⇕ ❚❚ появится на экране ЖКД или в видоискателе.
(5) Нажмите кнопку ❚❚ на пульте дистанционного управления и одновременно начните воспроизведение звука, который Вы хотите записать. Новый звук будет записан в режиме стерео 2 (ST2) во время воспроизведения.
(6) Нажмите кнопку ■ на пульте дистанционного управления в том месте, где Вы хотите остановить запись.



Monitoring the new recorded sound

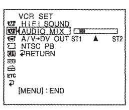
To play back the sound

Adjust the balance between the original sound (ST1) and the new sound (ST2) by selecting AUDIO MIX in the menu settings (p. 116).

Контроль нового записанного звука

Для воспроизведения звука

Отрегулируйте баланс между первоначальным звуком (ST1) и новым звуком (ST2), выбрав команду AUDIO MIX в установках меню (стр. 116).



Five minutes after when you disconnect the power source or remove the battery pack, the setting of AUDIO MIX returns to the original sound (ST1) only. The factory setting is original sound only.

Notes
- New sound cannot be recorded on a tape already recorded in the 16-bit mode (32 kHz, 44.1 kHz or 48 kHz) (p. 120).
- New sound cannot be recorded on a tape already recorded in the LP mode.
- You cannot add audio with the i DV IN/OUT jack (DCR-TRV20E only).

If you make all the connections
The audio input to be recorded will take precedence over others in the following order.
- MIC (PLUG IN POWER) jack
- Intelligent accessory shoe
- AUDIO/VIDEO jack
- Built-in microphone

If i.LINK cable (DV connecting cable) (not supplied) is connected to your camcorder
You cannot add a sound to a recorded tape.

To add new sound more precisely
Press ZERO SET MEMORY on the Remote Commander at the point where you want to stop recording later in the playback mode.
Carry out steps 3 to 5. Recording automatically stops at the point where ZERO SET MEMORY was pressed.

We recommend you to add new sound on a tape recorded with your camcorder
If you add new sound on a tape recorded with another camcorder (including DCR-TRV6E/TRV11E/TRV20E), the sound quality may become worse.

If you set the write-protect tab of the tape to lock
You cannot use the audio dubbing function. Slide the write-protect tab to release the write protection.

On blank portions
You cannot add an audio.

Через пять минут после отсоединения источника питания или снятия батарейного блока установка AUDIO MIX вернется к первоначальному звуку (ST1). Заводской установкой является только первоначальный звук.

Примечания
- Новый звук не может быть записан на ленту, уже записанную в 16-битовом режиме (32 кГц, 44,1 кГц или 48 кГц) (стр. 126).
- Новый звук не может быть записан на ленту, уже записанную в режиме LP.
- Нельзя добавить звук с помощью гнезда i DV IN/OUT (Только для модели DCR-TRV20E).

Если Вы выполнили все подсоединения
Записываемый входной сигнал будет иметь приоритет над другими сигналами в следующей последовательности.
- Гнездо MIC (PLUG IN POWER)
- Держатель для вспомогательных принадлежностей
- Гнездо AUDIO/VIDEO
- Встроенный микрофон

Если к видеокамере подсоединен кабель i.LINK (соединительный кабель DV) (не входит в комплект)
Вы не сможете добавить звук на записанную ленту.

Для более точного добавления нового звука
Нажмите кнопку ZERO SET MEMORY на пульте дистанционного управления в том месте, где нужно закончить запись позже в режиме воспроизведения.
Выполните пункты с 3 по 5. Запись автоматически останавливается в том месте, где будет нажата кнопка ZERO SET MEMORY.

Рекомендуется добавлять новый звук на ленту, записанную с помощью Вашей видеокамеры
Если Вы добавите звук на ленту, записанную с помощью другой видеокамеры (включая DCR-TRV6E/TRV11E/TRV20E), качество звука может быть хуже.

Если защитный лепесток установлен в положение защиты от записи
Вы не можете использовать функцию аудиоперезаписи. Передвиньте лепесток защиты от записи для отключения защиты.

На незаписанные участки
Невозможно добавлять звук.

Superimposing a title

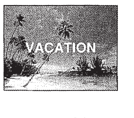
CM only If you use a tape with cassette memory, you can superimpose the title while recording or after recording. When you play back the tape, the title is displayed for five seconds from the point where you superimposed it.

You can select one of eight preset titles and two custom titles (p. 112). You can also select the colour, size and position of titles.

Наложение титра

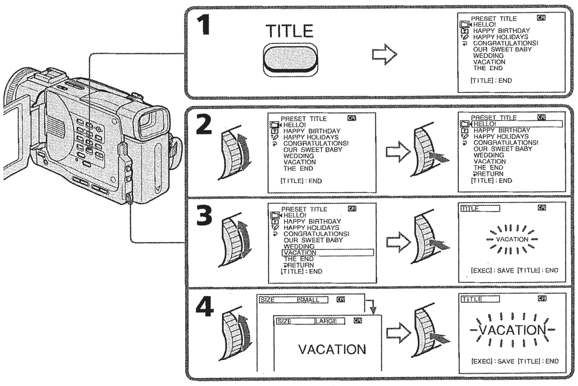
CM only Если Вы используете ленту с кассетной памятью, Вы можете выполнять наложение титра во время записи или после записи. Если Вы воспроизводите ленту, титр будет отображаться в течение пяти секунд с того места, где Вы наложили его.

Вы можете выбрать один из восьми предварительно установленных титров и двух собственных титров (стр. 112). Вы можете также выбирать цвет, размер и положение титров.



(1) In the standby, recording, playback or playback pause mode, press TITLE to display the title menu.
(2) Turn the SEL/PUSH EXEC dial to select 🗀, then press the dial.
(3) Turn the SEL/PUSH EXEC dial to select the desired title, then press the dial. The title is flashing.
(4) Change the colour, size, or position, if necessary.
  ① Turn the SEL/PUSH EXEC dial to select the COLOUR, SIZE or POSITION, then press the dial. The item appears.
  ② Turn the SEL/PUSH EXEC dial to select the desired item, then press the dial.
  ③ Repeat steps ① and ② until the title is laid out as desired.
(5) Press the SEL/PUSH EXEC dial again to complete the setting.
In the recording, playback or playback pause mode:
  The "TITLE SAVE" indicator appears on the screen for five seconds and the title is set.
In the standby mode:
  The "TITLE" indicator appears. And when you press START/STOP to start recording, "TITLE SAVE" appears on the screen for five seconds and the title is set.

(1) В режиме ожидания, записи, воспроизведения или паузы воспроизведения нажмите кнопку TITLE для отображения меню титров.
(2) Поверните диск SEL/PUSH EXEC для выбора 🗀, а затем нажмите на диск.
(3) Поверните диск SEL/PUSH EXEC для выбора нужного титра, а затем нажмите на диск. Титр начнет мигать.
(4) Измените цвет, размер или положение титра, если нужно.
  ① Поверните диск SEL/PUSH EXEC для выбора COLOUR, SIZE или POSITION, а затем нажмите на диск. Появится элемент.
  ② Поверните диск SEL/PUSH EXEC для выбора нужного пункта, а затем нажмите на диск.
  ③ Повторяйте пункты ① и ② до тех пор, пока титр не будет расположен надлежащим образом.
(5) Нажмите на диск SEL/PUSH EXEC для завершения установки.
В режиме записи, воспроизведения или паузы воспроизведения:
  На экране на пять секунд появится индикатор "TITLE SAVE", и установка титра будет завершена.
В режиме ожидания:
  Появится индикатор "TITLE". Если Вы нажмете кнопку START/STOP для начала записи, на экране на пять секунд появится индикатор "TITLE SAVE", и установка титра будет завершена.



If you set the write-protect tab of the tape to lock
You cannot superimpose or erase the title. Slide the write-protect tab to release the write protection.

To use the custom title
If you want to use the custom title, select 🅃 in step 2.

If the tape has a blank portion
You cannot superimpose a title on the portion.

If the tape has a blank portion in the middle of the recorded parts
The title may not be displayed correctly.

The titles superimposed with your camcorder
- They are displayed by only the DV MiniDV format video equipment with index titler function.
- The point you superimposed the title may be detected as an index signal when searching a recording with other video equipment.

Если защитный лепесток установлен в положение защиты от записи
Вы не сможете выполнить наложение или стирание титра. Передвиньте лепесток защиты от записи для отключения защиты.

Для использования собственного титра
Если нужно использовать собственный титр, выберите 🅃 в пункте 2.

Если на пленке имеется незаписанный участок
В этом участке наложение титра невозможно.

Если на ленте имеется незаписанный участок между записанными частями
Титр может отображаться неправильно.

Титры, наложенные с помощью Вашей видеокамеры
- Они отображаются только с помощью видеоаппаратуры формата DV MiniDV с функцией индексного наложения титров.
- Место наложения титра может быть обнаружено по индексному сигналу при поиске записи с помощью другой видеоаппаратуры.

Superimposing a title

If the tape has too many index signals
You may not be able to superimpose a title because the memory is full. In this case, delete data you do not need.

Not to display titles
Set TITLE DSPL to OFF in the menu settings (p. 116).

Title setting
- The title colour changes as follows :
  WHITE ←→ YELLOW ←→ VIOLET ←→ RED ←→ CYAN ←→ GREEN ←→ BLUE
- The title size changes as follows :
  SMALL ←→ LARGE
  You cannot input 13 characters or more for a LARGE size.
- The title position changes as follows :
  If you select the title size "SMALL," you have nine choices for the title position.
  If you select the title size "LARGE," you have eight choices for the title position.

One cassette can have up to about 20 titles, if one title consists of 5 characters
However, if the cassette memory is full with date, photo and cassette label data, one cassette can have only up to about 11 titles with 5 characters each.
Cassette memory capacity is as follows:
- 6 date data (maximum)
- 12 photo data (maximum)
- 1 cassette label (maximum)

If the "CM FULL" mark appears
The cassette memory is full. If you erase the title in the cassette, you can label it.

Наложение титра

Если на кассете записано слишком много индексных сигналов
Вероятно, наложение титров будет невозможно, поскольку произошло переполнение памяти. В этом случае удалите ненужные данные.

Для отмены отображения титров
Установите команду TITLE DSPL в положение OFF в установках меню (стр. 116).

Установка титра
- Цвет титра изменяется следующим образом:
  WHITE (белый) ←→ YELLOW (желтый) ←→ VIOLET (фиолетовый) ←→ RED (красный) ←→ CYAN (голубой) ←→ GREEN (зеленый) ←→ BLUE (синий)
- Размер титра изменяется следующим образом:
  SMALL (маленький) ←→ LARGE (большой)
  При большом размере нельзя ввести более 13 символов.
- Позиция титра изменяется следующим образом:
  Если выбран "SMALL" (маленький) размер титра, можно выбрать один из девяти вариантов символов в позиции титра.
  Если выбран "LARGE" (большой) размер титров, можно выбрать один из восьми вариантов символов в позиции титра.

На одной кассете может вмещаться до 20 титров, если один титр состоит из 5 символов
Однако, если кассетная память уже содержит дату, фото и данные кассетной маркировки, то на одной кассете может вмещаться около 11 титров с 5 символами каждый.
Емкость кассетной памяти следующая:
- Данные 6 дат (максимум)
- Данные 12 фото (максимум)
- 1 кассетная маркировка (максимум).

Если появляется символ "CM FULL"
Кассетная память переполнена. Если стереть титр на кассете, Вы сможете выполнить ее маркировку.

Superimposing a title

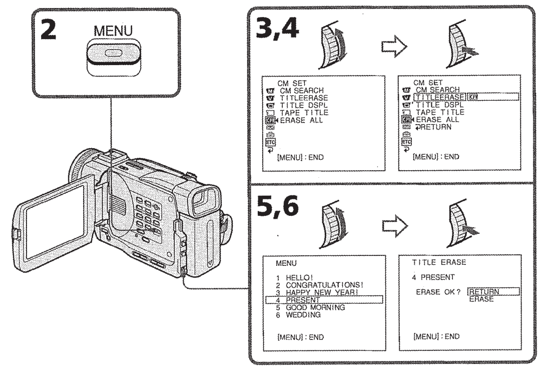
Erasing a title

(1) Set the POWER switch to VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E).
(2) Press MENU to display the menu.
(3) Turn the SEL/PUSH EXEC dial to select CM, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select TITLEERASE, then press the dial.
Title erase display appears.
(5) Turn the SEL/PUSH EXEC dial to select the title you want to erase, then press the dial.
"ERASE OK ?" indicator appears.
(6) Make sure the title is the one you want to erase, and turn the SEL/PUSH EXEC dial to select ERASE, then press the dial.

Наложение титра

Стирание титра

(1) Установите переключатель POWER в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).
(2) Нажмите кнопку MENU для отображения меню.
(3) Поверните диск SEL/PUSH EXEC для выбора CM, а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора TITLE ERASE, а затем нажмите на диск.
Появится индикация стирания титра.
(5) Поверните диск SEL/PUSH EXEC для выбора титра, который Вы хотите стереть, а затем нажмите на диск.
Появится индикатор "ERASE OK ?".
(6) Убедитесь, что это именно тот титр, который Вы хотите стереть, и поверните диск SEL/PUSH EXEC для выбора команды ERASE, а затем нажмите на диск.



To cancel erasing a title
Select RETURN in step 6.

Для отмены стирания титра
Выберите RETURN в пункте 6.

Making your own titles

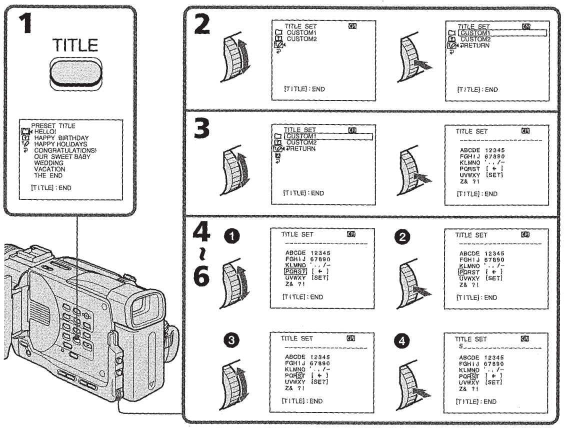
CM only You can make up to two titles and store them in the cassette memory. Each title can have up to 20 characters.

(1) Press TITLE in the standby or VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) mode.
(2) Turn the SEL/PUSH EXEC dial to select T✎, then press the dial.
(3) Turn the SEL/PUSH EXEC dial to select the first line (CUSTOM1) or second line (CUSTOM2), then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select the column of the desired character, then press the dial.
(5) Turn the SEL/PUSH EXEC dial to select the desired character, then press the dial.
(6) Repeat steps 4 and 5 until you have selected all characters and completed the title.
(7) To finish making your own titles, turn the SEL/PUSH EXEC dial to select [SET], then press the dial. The title is stored in memory.
(8) Press TITLE to make the title menu disappear.

Создание Ваших собственных титров

CM only Вы можете составить до двух титров и сохранить их в кассетной памяти. Коаждый титр может содержать до 20 символов.

(1) Нажмите кнопку TITLE в режиме ожидания или режиме VCR (DCR-TRV20E)/ PLAYER (DCR-TRV6E/TRV11E).
(2) Поверните диск SEL/PUSH EXEC для выбора T✎, а затем нажмите на диск.
(3) Поверните диск SEL/PUSH EXEC для выбора первой строки (CUSTOM1) или второй строки (CUSTOM2), а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора колонки с нужным символом, а затем нажмите на диск.
(5) Поверните диск SEL/PUSH EXEC для выбора нужного символа, а затем нажмите на диск.
(6) Повторяйте пункты 4 и 5 до тех пор, пока Вы не выберите все символы и полностью не составите титр.
(7) Для завершения составления своих собственных титров поверните диск SEL/ PUSH EXEC для выбора команды [SET], а затем нажмите на диск. Титр будет сохранен в памяти.
(8) Нажмите кнопку TITLE, чтобы исчезло меню титров.



Making your own titles

To change a title you have stored
In step 3, select CUSTOM1 or CUSTOM2, depending on which title you want to change, then press the SEL/PUSH EXEC dial. Turn the SEL/PUSH EXEC dial to select [←], then press the dial to delete the title. The last character is erased. Enter the new title as desired.

If you take five minutes or longer to enter characters in the standby mode while a cassette is in your camcorder
The power automatically goes off. The characters you have entered remain stored in memory. Set the POWER switch to OFF (CHG) once and then to CAMERA again, then proceed from step 1. We recommend setting the POWER switch to VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) or removing the cassette so that your camcorder does not automatically turn off while you are entering title characters.

To delete the title
Select [←]. The last character is erased.

To enter a space
Select [Z& ? !], then select the blank part.

Создание Ваших собственных титров

Для изменения сохраненного в памяти титра
В пункте 3 выберите установку CUSTOM1 или CUSTOM2, в зависимости от титра, который Вы хотите изменить, а затем нажмите на диск SEL/PUSH EXEC. Поверните диск SEL/PUSH EXEC для выбора установки [←], а затем нажмите на диск для удаления титра. Последний символ будет стерт. Введите новый нужный титр.

Если в режиме ожидания ввод символов занимает пять или более минут, когда кассета находится в видеокамере
Питание выключится автоматически. Символы, которые Вы ввели, сохранятся в памяти видеокамеры. Установите сначала переключатель POWER в положение OFF (CHG), затем снова в положение CAMERA, и начните с пункта 1.
Рекомендуется установить переключатель POWER в положение VCR (DCR-TRV20E)/ PLAYER (DCR-TRV6E/TRV11E) или вынуть кассету, чтобы Ваша видеокамера автоматически не выключалась во время ввода символов титра.

Для удаления титра
Выберите [←]. Последний символ будет стерт.

Для ввода пробела
Выберите [Z& ? !], затем выберите пустую часть.

Labelling a cassette

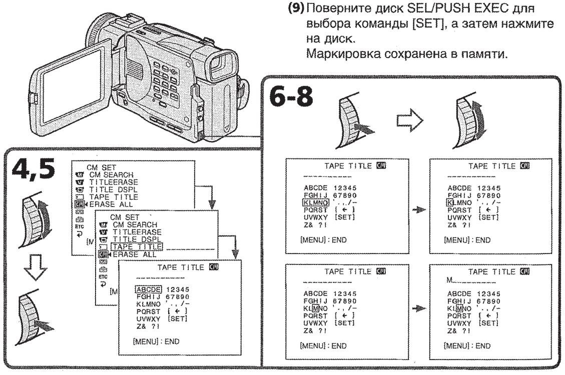
CM only If you use a tape with cassette memory, you can label a cassette. The label can consist of up to 10 characters and is stored in cassette memory. When you insert the labelled cassette and turn the power on, the label is displayed for about five seconds.

(1) Insert the cassette you want to label.
(2) Set the POWER switch to VCR (DCR-TRV20E) /PLAYER (DCR-TRV6E/TRV11E).
(3) Press MENU to display the menu.
(4) Turn the SEL/PUSH EXEC dial to select CM, then press the dial.
(5) Turn the SEL/PUSH EXEC dial to select TAPE TITLE, then press the dial. Tape title display appears.
(6) Turn the SEL/PUSH EXEC dial to select the column of the desired character, then press the dial.
(7) Turn the SEL/PUSH EXEC dial to select the desired character, then press the dial.
(8) Repeat steps 6 and 7 until you finish the label.
(9) Turn the SEL/PUSH EXEC dial to select [SET], then press the dial.
The label is stored in memory.

Маркировка кассеты

CM only При использовании ленты с кассетной памятью, Вы можете выполнить маркировку кассеты. Маркировка может состоять из 10 символов и храниться в памяти кассеты. Если Вы вставите кассету с маркировкой и включите питание, то маркировка будет отображаться около пяти секунд.

(1) Вставьте кассету, которую Вы хотите маркировать.
(2) Установите переключатель POWER в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).
(3) Нажмите кнопку MENU для отображения меню.
(4) Поверните диск SEL/PUSH EXEC для выбора CM, а затем нажмите на диск.
(5) Поверните диск SEL/PUSH EXEC для выбора установки TAPE TITLE, а затем нажмите на диск. Появится изображение маркировки ленты.
(6) Поверните диск SEL/PUSH EXEC для выбора колонки с нужным символом, а затем нажмите на диск.
(7) Поверните диск SEL/PUSH EXEC для выбора нужного символа, а затем нажмите на диск.
(8) Повторяйте пункты 6 и 7 до тех пор, пока не завершите маркировку.
(9) Поверните диск SEL/PUSH EXEC для выбора команды [SET], а затем нажмите на диск.
Маркировка сохранена в памяти.



Labelling a cassette

To erase a character

In step 6 turn the SEL/PUSH EXEC dial to select [←], then press the dial. The last character is erased.

To change the label you have made

Insert the cassette to change the label, and operate in the same way to make a new label.

If you set the write-protect tab of the tape to lock
You cannot label it. Slide the write-protect tab to release the write protection.

If the CM mark appears in step 5
The cassette memory is full. If you erase the title in the cassette, you can label it.

If you have superimposed titles in the cassette
When the label is displayed, up to 4 titles also appear.

When the "-----" indicator has fewer than 10 spaces
The cassette memory is full.
The "-----" indicates the number of characters you can select for the label.

To enter a space
Select [Z&   ? !], then select the blank part.

Маркировка кассеты

Для стирания символа

В пункте 6 поверните диск SEL/PUSH EXEC для выбора установки [←], а затем нажмите на диск. Последний символ будет стерт.

Для изменения выполненной маркировки

Вставьте кассету для изменения маркировки и выполните те же действия, что и при маркировке новой кассеты.

Если защитный лепесток установлен в положение защиты от записи
Вы не сможете выполнить маркировку кассеты. Передвиньте лепесток защиты от записи для отключения защиты.

Если в пункте 5 появится символ CM
Кассетная память переполнена. Если стереть титр на кассете, Вы сможете выполнить ее маркировку.

Если Вы выполнили наложение титров на кассете
При отображении маркировки, появятся также до 4 титров.

Если индикатор "-----" имеет менее 10 пробелов
Кассетная память переполнена.
Индикатор "-----" указывает количество символов, которое Вы можете выбрать для маркировки.

Для ввода пробела
Выберите [Z&   ? !], затем выберите пустую часть.

— Customizing Your Camcorder —

Changing the menu settings

To change the mode settings in the menu settings, select the menu items with the SEL/PUSH EXEC dial. The factory settings can be partially changed. First, select the icon, then the menu item and then the mode.

(1) In the standby, memory or VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) mode, press MENU.
(2) Turn the SEL/PUSH EXEC dial to select the desired icon, then press the dial to set.
(3) Turn the SEL/PUSH EXEC dial to select the desired item, then press the dial to set.
(4) Turn the SEL/PUSH EXEC dial to select the desired mode, and press the dial to set.
(5) If you want to change other items, select ⮐ RETURN and press the dial, then repeat steps from 2 to 4.
For details, see "Selecting the mode setting of each item" (p. 117).

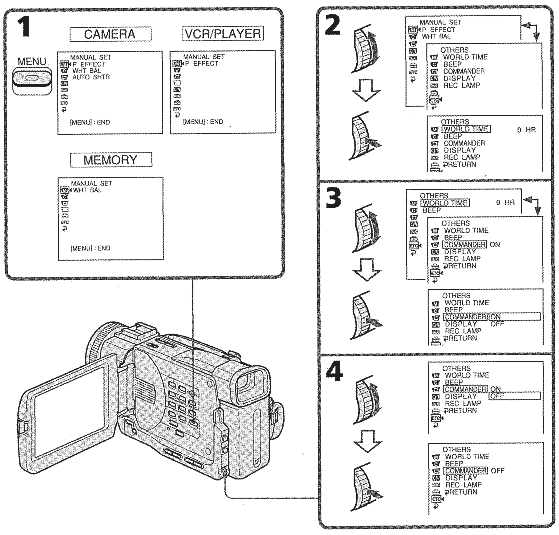
– Выполнение индивидуальных установок на видеокамере –

Изменение установок меню

Для изменения установок режима в установках меню выберите пункты меню с помощью диска SEL/PUSH EXEC. Заводские установки могут быть частично изменены. Сначала выберите пиктограмму, затем пункт меню, а затем режим.

(1) В режиме ожидания, памяти или VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) нажмите MENU.
(2) Поверните диск SEL/PUSH EXEC для выбора нужной пиктограммы, а затем нажмите на диск для выполнения установки.
(3) Поверните диск SEL/PUSH EXEC для выбора нужного элемента, а затем нажмите на диск для выполнения установки.
(4) Поверните диск SEL/PUSH EXEC для выбора нужного режима, а затем нажмите на диск для выполнения установки.
(5) Если Вы хотите изменить другие пункты, выберите команду ⮐ RETURN, а затем нажмите на диск, после чего повторите действия пунктов со 2 по 4.

Подробные сведения приведены в разделе "Выбор установок режима каждого элемента" (стр. 123).



Changing the menu settings

To make the menu display disappear

Press MENU.

Menu items are displayed as the following icons:

- MANUAL SET
- CAMERA SET
- VCR SET (DCR-TRV20E only)
- PLAYER SET (DCR-TRV6E/TRV11E only)
- LCD/VF SET
- MEMORY SET (DCR-TRV11E/TRV20E only)
- CM SET
- TAPE SET
- SETUP MENU
- ETC OTHERS

Изменение установок меню

Для того, чтобы скрыть индикацию меню

Нажмите кнопку MENU.

Пункты меню отображаются в виде приведенных ниже пиктограмм:

- MANUAL SET
- CAMERA SET
- VCR SET (только для модели DCR-TRV20E)
- PLAYER SET (только для модели DCR-TRV6E/TRV11E)
- LCD/VF SET
- MEMORY SET (только для модели DCR-TRV11E/TRV20E)
- CM SET
- TAPE SET
- SETUP MENU
- ETC OTHERS

English

Selecting the mode setting of each item

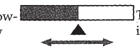
● is the factory setting.

Menu items differ depending on the position of the POWER switch.

Icon/item	Mode	Meaning	POWER switch
P EFFECT		To add special effects like those in films or on the TV to images (p. 56).	CAMERA VCR/PLAYER
WHT BAL		To adjust the white balance (p. 49).	CAMERA MEMORY
AUTO SHTR	● ON	To automatically activate the electronic shutter when shooting in bright conditions.	CAMERA
	OFF	To not automatically activate the electronic shutter even when shooting in bright conditions.	
D ZOOM	● OFF	To deactivate the digital zoom. Up to 10× zoom is carried out.	CAMERA
	20×	To activate the digital zoom. More than 10× to 20× zoom is performed digitally (p. 27).	
	40×	To activate the digital zoom. More than 10× to 40× zoom is performed digitally (p. 27).	
16:9WIDE	● OFF	—	CAMERA
	ON	To record a 16:9 wide picture (p. 51).	
STEADYSHOT	● ON	To compensate for camera-shake.	CAMERA
	OFF	To cancel the SteadyShot function. Natural pictures are produced when shooting a stationary object with a tripod.	
N.S. LIGHT	● ON	To use the NightShot Light function (p. 31).	CAMERA MEMORY
	OFF	To cancel the NightShot Light function.	

Notes on the SteadyShot function
- The SteadyShot function will not correct excessive camera-shake.
- Attachment of a conversion lens (not supplied) may influence the SteadyShot function.

If you cancel the SteadyShot function
The SteadyShot off indicator appears. Your camcorder prevents excessive compensation for camera-shake.

Icon/item	Mode	Meaning	POWER switch
HiFi SOUND	● STEREO	To play back a stereo tape or dual sound track tape with main and sub sound (p. 172).	VCR/ PLAYER
	1	To play back a stereo tape with the left sound or a dual sound tape with main sound.	
	2	To play back a stereo tape with the right sound or a dual sound track tape with sub sound.	
AUDIO MIX		To adjust the balance between the stereo 1 and stereo 2 (p. 106). ST1 ▲ ST2	VCR/ PLAYER
A/V→DV OUT (DCR-TRV20E only)	● OFF	To output digital images and sound in analog format using your camcorder.	VCR
	ON	To output analog images and sound in digital format using your camcorder.	
NTSC PB	● ON PAL TV	To play back a tape recorded in the NTSC colour system on a PAL system TV.	VCR/ PLAYER
	NTSC 4.43	To play back a tape recorded in the NTSC colour system on a TV with the NTSC 4.43 mode.	
LCD B. L.	● BRT NORMAL	To set the brightness on the LCD screen normal.	VCR/ PLAYER CAMERA MEMORY
	BRIGHT	To brighten the LCD screen.	
LCD COLOUR		To adjust the colour on the LCD screen, turn and press the SEL/PUSH EXEC dial. To get low-intensity  To get high-intensity	VCR/ PLAYER CAMERA MEMORY
VF B.L.	● BRT NORMAL	To set the brightness on the viewfinder screen to normal.	VCR/ PLAYER CAMERA MEMORY
	BRIGHT	To brighten the viewfinder screen.	

Note on the playback of the NTSC tapes

When you play back a tape on a Multi System TV, select the best mode while viewing the picture on the TV.

Notes on LCD B.L.

- When you select "BRIGHT", battery life is reduced by about 10 percent during recording.
- When you use power sources other than the battery pack, "BRIGHT" is automatically selected.

Note on VF B.L.

When you select "BRIGHT", battery life is reduced by about 10 percent during recording.

Icon/item	Mode	Meaning	POWER switch
***1) CONTINUOUS**	● OFF	Not to record continuously.	MEMORY
	ON*2)	To record pictures continuously (p. 140).	
	MULTI SCRN	To record nine still picutures continuously (p. 140).	
QUALITY	● SUPER FINE*2)	To record still pictures in the super fine image quality mode, using the "Memory Stick" (p. 134).	VCR/ PLAYER MEMORY
	FINE	To record still pictures in the fine image quality mode, using the "Memory Stick" (p. 134).	
	STANDARD	To record still pictures in the standard image quality mode, using the "Memory Stick" (p. 134).	
IMAGE SIZE*2)	● 1152×864	To record still pictures with 1152×864 size (p. 136).	MEMORY
	640×480	To record still pictures with 640×480 size (p. 136).	
PRINT MARK	ON	To write a print mark on the recorded still images you want to print out later.	VCR/ PLAYER MEMORY
	● OFF	To erase print marks on still pictures.	
PROTECT	ON	To protect selected still pictures against accidental erasure (p. 164).	VCR/ PLAYER MEMORY
	● OFF	Not to protect still pictures.	
SLIDE SHOW		To play back images in a continuous loop (p. 162).	MEMORY
DELETE ALL		To delete all the unprotected images (p. 167).	MEMORY
FORMAT	● RETURN	To cancel formatting.	MEMORY
	OK	To format an inserted "Memory Stick." 1. Select FORMAT with the SEL/PUSH EXEC dial, then press the dial. 2. Turn the SEL/PUSH EXEC dial to select OK, then press the dial. 3. After "EXECUTE" appears, press the SEL/PUSH EXEC dial. "FORMATTING" flashes during formatting. "COMPLETE" appears when formatting is finished.	
PHOTO SAVE		To duplicate mini DV still pictures on "Memory Stick"s (p. 152).	VCR/ PLAYER

*1) DCR-TRV11E/TRV20E only
*2) DCR-TRV20E only

Note on IMAGE SIZE (DCR-TRV20E only):

When you set CONTINUOUS to MULTI SCRN or you set the POWER switch to VCR, IMAGE SIZE is automatically set to 640×480.

Notes on formatting

- Supplied "Memory Stick"s have been formatted at factory. Formatting with this camcorder is not required.
- Do not turn the POWER switch or press any button while the display shows "FORMATTING. "
- You cannot format the "Memory Stick" if the write-protect tab on the "Memory Stick" is set to LOCK.
- Format again if the message "⚠" appears.

Formatting erases all information on the "Memory Stick"

Check the contents of the "Memory Stick" before formatting.

- Formatting erases sample images on the "Memory Stick."
- Formatting erases the protected image data on the "Memory Stick."

Icon/item	Mode	Meaning	POWER switch
CM SEARCH	● ON	To search using cassette memory (p. 73).	VCR/ PLAYER
	OFF	To search without using cassette memory.	
TITLEERASE		To erase the title you have superimposed (p. 111).	VCR/ PLAYER CAMERA
TITLE DSPL	● ON	To display the title you have superimposed.	VCR/ PLAYER
	OFF	Not to display the title.	
TAPE TITLE		To label a cassette (p. 114).	VCR/ PLAYER CAMERA
ERASE ALL		To erase all the data in cassette memory.	VCR/ PLAYER CAMERA
REC MODE	● SP	To record in the SP (Standard Play) mode.	VCR/ PLAYER CAMERA
	LP	To increase the recording time to 1.5 times the SP mode.	
AUDIO MODE	● 12BIT	To record in the 12-bit mode (two stereo sounds).	VCR/ PLAYER CAMERA
	16BIT	To record in the 16-bit mode (the one stereo sound with high quality).	

Notes on the LP mode

- When you record a tape in the LP mode on your camcorder, we recommend playing the tape on your camcorder. When you play back the tape on other camcorders or VCRs, noise may occur in pictures or sound.
- When you record in the LP mode, we recommend using a Sony Excellence/Master mini DV cassette so that you can get the most out of your camcorder.
- You cannot make audio dubbing on a tape recorded in the LP mode. Use the SP mode for the tape to be audio dubbed.
- When you record in the SP and LP modes on one tape or you record some scenes in the LP mode, the playback picture may be distorted or the time code may not be written properly between scenes.

Notes on AUDIO MODE

- You cannot dub audio sound on a tape recorded in the 16-bit mode.
- When playing back a tape recorded in the 16-bit mode, you cannot adjust the balance in AUDIO MIX.

Icon/item	Mode	Meaning	POWER switch
REMAIN	● AUTO	To display the remaining tape bar: • for about 8 seconds after your camcorder is turned on and calculates the remaining amount of tape. • for about 8 seconds after a cassette is inserted and your camcorder calculates the remaining amount of tape • for about 8 seconds after ► is pressed in VCR (DCR-TRV 20E)/PLAYER (DCR-TRV6E/ TRV11E) mode. • for about 8 seconds after DISPLAY is pressed to display the screen indicators. • for the period of tape rewinding, forwarding or picture search in the PLAYER mode.	VCR/ PLAYER CAMERA
	ON	To always display the remaining tape indicator.	
DATA CODE	● DATE/CAM	To display date, time and various settings during playback.	VCR/ PLAYER
	DATE	To display date and time during playback.	
CLOCK SET		To reset the date or time (p. 129).	CAMERA MEMORY
LTR SIZE	● NORMAL	To display selected menu items in normal size.	VCR/ PLAYER CAMERA MEMORY
	2×	To display selected menu items at twice the normal size.	
DEMO MODE	● ON	To make the demonstration appear.	CAMERA
	OFF	To cancel the demonstration mode.	

Notes on DEMO MODE

- You cannot select DEMO MODE when a cassette is inserted in your camcorder.
- DEMO MODE is set to STBY (Standby) at the factory and the demonstration starts about 10 minutes after you have set the POWER switch to CAMERA without a cassette inserted.
  Note that you cannot select STBY of DEMO MODE in the menu settings.
- When NIGHTSHOT is set to ON, the NIGHTSHOT indicator appears on the LCD screen or in the viewfinder and you cannot select DEMO MODE in the menu settings.

Changing the MENU settings

Icon/item	Mode	Meaning	POWER switch
ETC **WORLD TIME**		To set the clock to the local time. Turn the SEL/PUSH EXEC dial to set a time difference. The clock changes by the time difference you set here. If you set the time difference to 0, the clock returns to the originally set time.	CAMERA MEMORY
BEEP	● MELODY	To output the melody when you start/stop recording or when an unusual condition occurs on your camcorder.	VCR/ PLAYER CAMERA MEMORY
	NORMAL	To output the beep instead of the melody.	
	OFF	To cancel the melody and beep sound.	
COMMANDER	● ON	To activate the Remote Commander supplied with your camcorder.	VCR/ PLAYER CAMERA MEMORY
	OFF	To deactivate the Remote Commander to avoid remote control misoperation caused by other VCR's remote control.	
DISPLAY	● LCD	To show the display on the LCD screen and in the viewfinder.	VCR/ PLAYER CAMERA MEMORY
	V-OUT/LCD	To show the display on the TV screen, LCD screen and in the viewfinder.	
REC LAMP	● ON	To light up the camera recording lamp at the front of your camcorder.	CAMERA MEMORY
	OFF	To turn the camera recording lamp off so that the person is not aware of the recording.	
VIDEO EDIT		To make programmes and perform video editing (p. 93).	VCR/ PLAYER
EDIT SET		To adjust and set the synchronicity of your camcorder and a VCR for dubbing in edit set mode.	VCR/ PLAYER

Note

If you press DISPLAY with DISPLAY set to V-OUT/LCD in the menu settings, the picture from a TV or VCR will not appear on the LCD screen even when your camcorder is connected to outputs on the TV or VCR.

When recording a close subject

When REC LAMP is set to ON, the red camera recording lamp on the front of the camcorder may reflect on the subject if it is close. In this case, we recommend you set REC LAMP to OFF.

In more than five minutes after removing the power source

The "AUDIO MIX", "COMMANDER", "HiFi SOUND", and "WHT BAL" items are returned to their factory settings.
The other menu items are held in memory even when the battery is removed.

Resetting the date and time

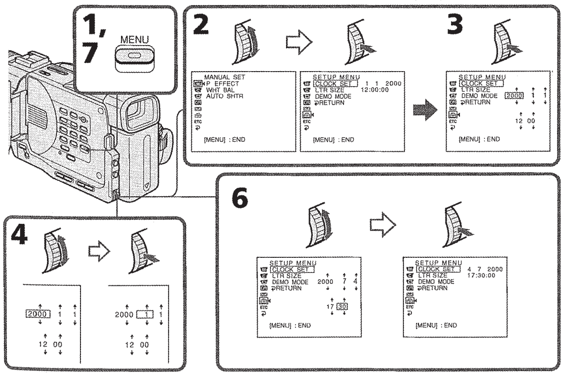
The clock is set at the factory to London time for United Kingdom to Paris time for the other European countries.
If you do not use your camcorder for about a half year, the date and time settings may be released (bars may appear) because the vanadium-lithium battery installed in your camcorder will have been discharged (p. 196).
First, set the year, then the month, the day, the hour and then the minute.

(1) In the standby mode, press MENU to display the menu.
(2) Turn the SEL/PUSH EXEC dial to select 🗂, then press the dial.
(3) Turn the SEL/PUSH EXEC dial to select CLOCK SET, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to adjust the desired year, then press the dial.
(5) Set the month, day and hour by turning the SEL/PUSH EXEC dial and pressing the dial.
(6) Set the minute by turning the SEL/PUSH EXEC dial and pressing the dial by the time signal. The clock starts to move.
(7) Press MENU to make the menu disappear.

Переустановка даты и времени

На предприятии-изготовителе часы установлены на лондонское время для моделей, поставляемых в Великобританию, и на парижское время для других европейских моделей.
Если Вы не использовали видеокамеру около полугода, установки даты и времени могут исчезнуть (появятся черточки), поскольку ванадиево-литиевая батарейка, установленная в этой видеокамере, разрядится (стр. 196).
Сначала установите год, затем месяц, день, час и минуту.

(1) В режиме ожидания нажмите кнопку MENU для отображения меню.
(2) Поверните диск SEL/PUSH EXEC для выбора установки 🗂, а затем нажмите на диск.
(3) Поверните диск SEL/PUSH EXEC для выбора команды CLOCK SET, а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора нужного года, а затем нажмите на диск.
(5) Поворачивая диск SEL/PUSH EXEC и нажимая на него, установите месяц, день и час.
(6) Установите минуты, поворачивая диск SEL/PUSH EXEC и нажимая на него в момент передачи сигнала точного времени. Часы начнут функционировать.
(7) Нажмите кнопку MENU для того, чтобы убрать меню.



Resetting the date and time

The year changes as follows:

Переустановка даты и времени

Год изменяется следующим образом:

1995 ←→ 2000 ← · · · · → 2079

If you do not set the date and time

"– –:– –:– –" is recorded on the data code of the tape and the "Memory Stick" (DCR-TRV11E/TRV20E only.)

Note on the time indicator

The internal clock of your camcorder operates on a 24-hour cycle.

Если Вы не установите дату и время

На ленте и "Memory Stick" будет записана индикация "– –:– –:– –" (только в модели DCR-TRV11E/TRV20E).

Примечание по индикатору времени

Встроенные часы Вашей видеокамеры работают в 24-часовом режиме.

— "Memory Stick" operations —

Using a "Memory Stick"–introduction

– DCR-TRV11E/TRV20E only

You can record and play back still images on a "Memory Stick" supplied with your camcorder. You can easily play back, record or delete still images. You can exchange image data with other equipment such as a personal computer etc., using the PC serial cable for "Memory Stick" supplied with your camcorder or PC card adaptor for "Memory Stick" (not supplied).

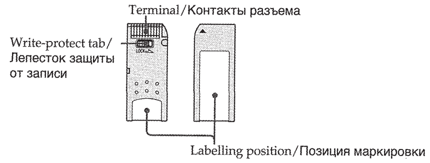
On file format (JPEG)

Your camcorder compresses image data in JPEG format (extension .jpg).

Typical image data file name

100-0001: This file name appears on the LCD screen or in the viewfinder of your camcorder.
DSC00001.jpg: This file name appears on the display of your personal computer.

Using a "Memory Stick"


Terminal/Контакты разъема
Write-protect tab/
Лепесток защиты
от записи
LOCK
Labelling position/Позиция маркировки

- You cannot record or erase still images when the write-protect tab on the "Memory Stick" is set to LOCK.
- We recommend backing up important data.
- Image data may be damaged in the following cases:
  - If you remove the "Memory Stick" or turn the power off while reading or writing.
  - If you use the "Memory Stick"s near magnets or magnet fields.
- Prevent metallic objects or your finger from coming into contact with the metal parts of the connecting section.
- Stick its label on the labelling position.
- Do not bend, drop or apply strong shock to "Memory Stick"s.
- Do not disassemble or modify "Memory Stick"s.

— Операции с "Memory Stick" —

Использование "Memory Stick" – Введение

– Только для модели DCR-TRV11E/TRV20E

Вы можете записывать и воспроизводить неподвижные изображения на "Memory Stick", прилагаемой к Вашей видеокамере. Вы легко можете выполнять воспроизведение, перезапись или удаление неподвижных изображений. Вы можете просматривать изображения на другой аппаратуре, например, персональном компьютере и т.д., используя кабель последовательного интерфейса для "Memory Stick", который поставляется с видеокамерой, или адаптер PC card для "Memory Stick" (не прилагается).

О формате файлов (JPEG)

Ваша видеокамера сжимает данные изображения в формат JPEG (с расширением .jpg).

Обычное имя файла данных изображения

100-0001: Это имя файла появляется на экране ЖКД или в видоискателе видеокамеры.
DSC00001.jpg: Такое имя файла появляется на мониторе Вашего ПК.

Использование "Memory Stick"

- Вы не можете записывать или стирать неподвижные изображения, если лепесток защиты от записи на "Memory Stick" установлен в положение LOCK.
- Важные данные рекомендуется копировать.
- Данные изображения могут быть повреждены в следующих случаях:
  - Если Вы извлекаете "Memory Stick" или выключаете питание во время чтения или записи.
  - Если Вы используете "Memory Stick" рядом с магнитами или источниками магнитных полей.
- Не прикасайтесь металлическими частями или пальцами к металлическим частям соединительных секций.
- Этикетку следует прикреплять в позиции маркировки.
- Не сгибайте, не роняйте и не трясите "Memory Stick".
- Не разбирайте и не вносите изменений в конструкцию "Memory Stick".

- Do not let "Memory Stick"s get wet.
- Do not use or keep "Memory Stick"s in locations that are:
  - – Extremely hot such as in a car parked in the sun or under the scorching sun.
  - – Under direct sunlight.
  - – Very humid or subject to corrosive gases.
- When you carry or store a "Memory Stick", put it in its case.

Formatting the supplied "Memory Stick"

Formatting with this camcorder is not required. The "Memory Stick" has been formatted in the FAT-format at factory.

"Memory Stick" supplied with your camcorder

- Sample images are recorded in the "Memory Stick" (p. 148). Note that these images will be deleted if you format the "Memory Stick".
- Stick the supplied label on the labelling position to prevent the accidental erasure. As for the labelling position, see the illustration on the previous page.

"Memory Stick"s formatted by a computer

"Memory Stick"s formatted by Windows OS or Macintosh computers do not have a guaranteed compatibility with this camcorder.

Notes on image data compatibility

- Image data files recorded on "Memory Stick"s by your camcorder conform with the Design Rules for Camera File Systems universal standard established by the JEIDA (Japan Electronic Industry Development Association). You cannot play back on your camcorder still images recorded on other equipment (DCR-TRV890E/TRV900/TRV900E or DSC-D700/D770) that does not conform with this universal standard. (These models are not sold in some areas.)
- If you cannot use the "Memory Stick" that is used with other equipment, format it with this camcorder (p. 119). However, formatting erases all information on the "Memory Stick".

"Memory Stick" and MEMORY STICK™ are trademarks of Sony Corporation.

- Windows is registered trademark licensed to Microsoft Corporation, registered in the U.S.A. and other countries.
- All other product names mentioned herein may be the trademarks or registered trademarks of their respective companies.
  Furthermore, "™" and "®" are not mentioned in each case in this manual.

- Не допускайте попадания влаги на "Memory Stick".
- Не используйте и не храните "Memory Stick":
  - – В слишком жарких местах, например, в автомобиле, припаркованном в солнечном месте, или под палящим солнцем
  - – На солнце.
  - – В очень влажных местах или местах, подверженных воздействию агрессивных газов.
- При переноске или хранении необходимо положить "Memory Stick" в футляр.

Форматирование прилагаемой "Memory Stick"

Форматирование на этой видеокамере не требуется. "Memory Stick" отформатирована в формате FAT на предприятии-изготовителе.

"Memory Stick", прилагаемая к Вашей видеокамере

- Пример изображений записан на "Memory Stick" (стр. 148). Следует помнить, что изображения будут удалены, если Вы отформатируете "Memory Stick".
- Прикрепите прилагаемую наклейку в позиции маркировки для предотвращения случайного стирания. Для получения сведений о позиции маркировки см. рисунок на предыдущей странице.

"Memory Stick", отформатированные на компьютере

"Memory Stick", отформатированные с помощью компьютеров, использующих операционную систему Windows или Macintosh, не обладают гарантированной совместимостью с данной видеокамерой.

Примечания по совместимости данных изображения

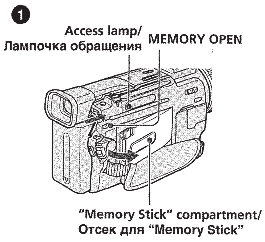
- Файлы данных изображения, записанные видеокамерой на "Memory Stick", соответствуют универсальному стандарту согласно правилам проектирования файловых систем для видеокамер, установленному ассоциацией JEIDA (Японской ассоциацией развития электронной промышленности).
  Вы не можете воспроизводить на Вашей видеокамере неподвижные изображения, записанные на другой аппаратуре (DCR-TRV890E/TRV900/TRV900E или DSC-D700/D770), которая не отвечает этому универсальному стандарту. (Эти модели не продаются в некоторых областях.)
- Если Вы не сможете использовать "Memory Stick", которые используются на другой аппаратуре, отформатируйте их с помощью этой видеокамеры (стр. 125). Однако форматирование удалит всю информацию на "Memory Stick".

"Memory Stick" и MEMORY STICK™ являются торговыми марками корпорации Sony.

- Windows является зарегистрированной торговой маркой, принадлежащей корпорации Microsoft Corporation, зарегистрированной в США и других странах.
- Все другие наименования продуктов, упомянутые в этом документе, могут быть торговыми марками или зарегистрированными торговыми марками соответствующих компаний.
  Кроме того, знаки "™" и "®" не упоминаются в каждом случае в данном руководстве.

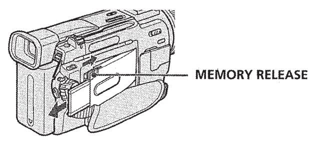
Inserting a "Memory Stick"

(1) Slide MEMORY OPEN in the direction of the arrow. The "Memory Stick" compartment opens.
(2) Insert a "Memory Stick" in as far as it can go with its rounded corner facing up.
Then, close the "Memory Stick" compartment.



Ejecting a "Memory Stick"

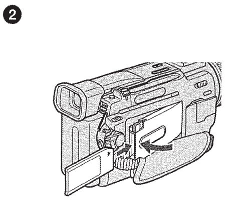
Open the "Memory Stick" compartment in step 1, press MEMORY RELEASE. The "Memory Stick" comes out.



When the access lamp is lit or flashing
Never shake or strike your camcorder. Do not turn the power off , eject a "Memory Stick" or remove the battery pack. Otherwise, the image data breakdown may occur.

Установка "Memory Stick"

(1) Передвиньте кнопку MEMORY OPEN в направлении стрелки. Откроется отсек для "Memory Stick".
(2) Вставьте "Memory Stick" до упора, чтобы скругленный угол был обращен вверх.
Затем закройте отсек для "Memory Stick".



Извлечение "Memory Stick"

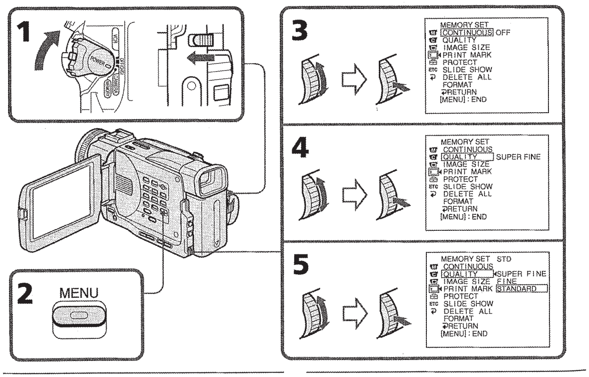
Откройте отсек для "Memory Stick" в пункте 1, нажмите кнопку MEMORY RELEASE. "Memory Stick" выйдет из отсека.

Если лампочка обращения горит или мигает
Никогда не трясите видеокамеру и не стучите по ней. Не выключайте питание, не извлекайте "Memory Stick" из отсека и не удаляйте батарейный блок. В противном случае данные изображения могут быть повреждены.

Selecting image quality mode

You can select image quality mode in still picture recording. Image quality is set to SUPER FINE mode at the factory.

(1) Set the POWER switch to MEMORY or VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E). Make sure that the LOCK switch is set to the left (unlock) position.
(2) Press MENU to display the menu.
(3) Turn the SEL/PUSH EXEC dial to select ▭, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select QUALITY, then press the dial.
(5) Turn the SEL/PUSH EXEC dial to select the desired image quality, then press the dial.



Note
In some cases, changing the image quality mode may not affect the image quality, depending on the types of images you are shooting.

Выбор режима качества изображения

Вы можете выбрать режим качества изображения при записи неподвижного изображения. На предприятии-изготовителе качество изображения предварительно установлено в режим SUPER FINE.

(1) Установите переключатель POWER в положение MEMORY или VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E). Убедитесь, что переключатель LOCK установлен в левое положение (разблокирован).
(2) Нажмите кнопку MENU для отображения меню.
(3) Поверните диск SEL/PUSH EXEC для выбора установки ▭, а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора установки QUALITY, а затем нажмите на диск.
(5) Поверните диск SEL/PUSH EXEC для выбора желаемого качества изображения, а затем нажмите на диск.

Примечание
В некоторых случаях изменения режима качества изображения может не отразиться на качестве изображения, в зависимости от типа изображений, съемку которых Вы производите.

Image quality mode

Setting	Meaning
SUPER FINE (SFN) (DCR-TRV20E only)	This is the highest image quality in your camcorder. The number of still images you can record is less than that in FINE mode. The image is compressed to about 1/3. SFN appears on the screen.
FINE (FINE)	Use this mode when you want to record high quality images. The image is compressed to about 1/6. FINE appears on the screen.
STANDARD (STD)	This is the standard image quality. The image is compressed to about 1/10. STD appears on the screen.

Differences in image quality mode
Recorded images are compressed in JPEG format before being stored in memory. The memory capacity allotted to each image varies depending on the selected image quality mode and image size. Details are shown in the table below. (You can select 1152×864 or 640×480 image size in the menu settings.)

1152×864 image size (DCR-TRV20E only)

Image quality mode	Memory capacity
SUPER FINE	About 600 KB
FINE	About 300 KB
STANDARD	About 200 KB

640×480 image size

Image quality mode	Memory capacity
SUPER FINE (DCR-TRV20E only)	About 190 KB
FINE	About 100 KB
STANDARD	About 60 KB

Image quality mode indicator
The image quality mode indicator is not displayed during playback.

Режим качества изображения

Установка	Назначение
SUPER FINE (SFN) (только для модели DCR-TRV20E)	Это наилучшее качество изображения в видеокамере. Количество неподвижных изображений, которые можно записать, будет меньше, чем при установке FINE. Изображение сжимается примерно до 1/3. На экране появляется SFN.
FINE (FINE)	Используйте этот режим, если Вы хотите записать высококачественные изображения. Изображение сжимается примерно до 1/6. На экране появляется FINE.
STANDARD (STD)	Это соответствует стандартному качеству изображения. Изображение сжимается примерно до 1/10. На экране появляется STD.

Отличия в режиме качества изображения
Перед сохранением в памяти записанные изображения сжимаются в формате JPEG. Объем памяти, выделенный для каждого изображения, изменяется в зависимости от выбранного режима качества изображения. Подробности содержатся в приведенной ниже таблице. (Можно выбрать размер 1152×864 или 640×480 в установках меню.)

Размер изображения 1152×864 (только для модели DCR-TRV20E)

Режим качества изображения	Емкость памяти
SUPER FINE	Около 600 Кб
FINE	Около 300 Кб
STANDARD	Около 200 Кб

Размер изображения 640×480

Режим качества изображения	Емкость памяти
SUPER FINE (только для модели DCR-TRV20E)	Около 190 Кб
FINE	Около 100 Кб
STANDARD	Около 60 Кб

Индикатор режима качества изображения
Индикатор режима качества изображения не отображается во время воспроизведения.

Using a "Memory Stick" -introduction

Selecting image size

– DCR-TRV20E only
You can select either one of two image sizes: 1152×864 or 640×480. (In VCR mode, you can select only 640×480.)

(1) Set the POWER switch to MEMORY. Make sure that the LOCK switch is set to the left (unlock) position.
(2) Press MENU to display the menu.
(3) Turn the SEL/PUSH EXEC dial to select ▭, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select IMAGE SIZE, then press the dial.
(5) Turn the SEL/PUSH EXEC dial to select the desired image size, then press the dial. The indicator changes as follows;

1152 ←→ 640

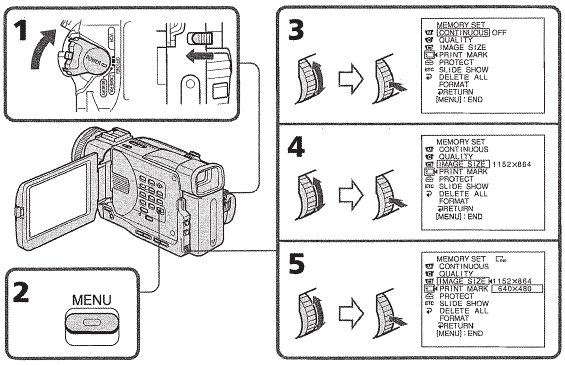
Использование "Memory Stick" – Введение

Выбор размера изображения

– только для модели DCR-TRV20E
Вы можете выбрать одно из двух размеров изображения: 1152×864 или 640×480. (В режиме VCR, можно выбрать только 640×480.)

(1) Установите переключатель POWER в положение MEMORY.
Убедитесь, что переключатель LOCK установлен в левое положение (разблокирован).
(2) Нажмите кнопку MENU для отображения меню.
(3) Поверните диск SEL/PUSH EXEC для выбора установки ▭, а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора IMAGE SIZE, а затем нажмите на диск.
(5) Поверните диск SEL/PUSH EXEC для выбора нужного размера изображения, затем нажмите на диск.
Индикатор будет изменяться следующим образом;

1152 ←→ 640



Using a "Memory Stick" -introduction

Использование "Memory Stick" – Введение

Image size settings/Установки размеров изображения

Setting/ Установка	Meaning/ Назначение	Indicator/Индикатор	
		Recording/ Запись	Playback/ Воспроизведение
1152×864	Records 1152×864 still images./ Запись 1152×864 - неподвижные изображения	1152SFN	1152
640×480	Records 640×480 still images./ Запись 640×480 - неподвижные изображения	640SFN	640

Note
When images recorded on a camcorder in 1152×864 size are played back on a unit that does not support that size, the full image may not appear.

Approximate number of images you can record on a "Memory Stick"
The number of images you can record varies depending on which image quality mode and image size you select and the complexity of the subject. 1152×864 image size and SUPER FINE are selected with DCR-TRV20E only.

Примечание
Если изображения, записанные на видеокамере, размера 1152×864 воспроизводятся на устройстве, которое не поддерживает этот размер, изображение может отображаться не в полном объеме.

Приблизительное количество изображений, которое Вы можете записать на "Memory Stick"
Количество изображений, которое можно записать меняется в зависимости от выбранного режима качества изображения, его размера и сложности объекта.
1152×864 и SUPER FINE выбираются только в модели DCR-TRV20E.

4MB type (supplied):/4-Мб тип (прилагается):

Image size/Размер изображения	640 × 480	1152 × 864
SUPER FINE (SFN)	20 images/20 изображений	6 images/6 изображений
FINE (FINE)	40 images/40 изображений	12 images/12 изображений
STANDARD (STD)	60 images/60 изображений	18 images/18 изображений

8MB type (not supplied):/8-Мб тип (не прилагается):

Image size/Размер изображения	640 × 480	1152 × 864
SUPER FINE (SFN)	40 images/40 изображений	12 images/12 изображений
FINE (FINE)	81 images/81 изображений	25 images/25 изображений
STANDARD (STD)	122 images/122 изображений	37 images/37 изображений

16MB type (not supplied):/16-Мб тип (не прилагается):

Image size/Размер изображения	640 × 480	1152 × 864
SUPER FINE (SFN)	82 images/82 изображений	25 images/25 изображений
FINE (FINE)	164 images/164 изображений	51 images/51 изображений
STANDARD (STD)	246 images/246 изображений	75 images/75 изображений

32MB type (not supplied):/32-Мб тип (не прилагается):

Image size/Размер изображения	640 × 480	1152 × 864
SUPER FINE (SFN)	164 images/164 изображений	52 images/52 изображений
FINE (FINE)	329 images/329 изображений	104 images/104 изображений
STANDARD (STD)	494 images/494 изображений	152 images/152 изображений

64MB type (not supplied):/64-Мб тип (не прилагается):

Image size/Размер изображения	640 × 480	1152 × 864
SUPER FINE (SFN)	329 images/329 изображений	104 images/104 изображений
FINE (FINE)	659 images/659 изображений	208 images/208 изображений
STANDARD (STD)	988 images/988 изображений	304 images/304 изображений

Recording still images on "Memory Stick"s – Memory Photo recording

– DCR-TRV11E/TRV20E only
You can record still pictures on "Memory Stick"s.

Before operation
Insert a "Memory Stick" into your camcorder.

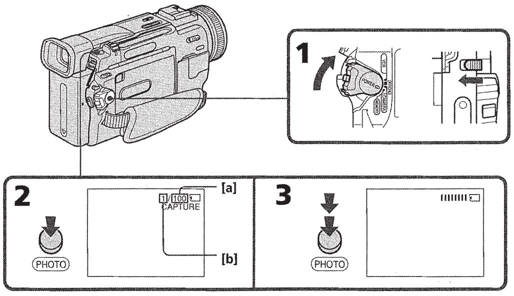
(1) Set the POWER switch to MEMORY. Make sure that the LOCK switch is set to the left (unlock) position.
(2) Keep pressing PHOTO lightly until the desired still picture appears. The green ● mark stops flashing, then lights up. The brightness of the picture and focus are adjusted, being targeted for the middle of the picture and are fixed. Recording does not start yet.
(3) Press PHOTO deeper. The image displayed on the screen will be recorded on a "Memory Stick". Recording is complete when the bar scroll indicator disappears.

Запись неподвижных изображений на "Memory Stick" – Запись фотографий в память

– Только для модели DCR-TRV11E/TRV20E
Можно выполнять запись неподвижных изображений на "Memory Stick".

Перед началом работы
Вставьте "Memory Stick" в Вашу видеокамеру.

(1) Установите переключатель POWER в положение MEMORY. Убедитесь, что переключатель LOCK установлен в левое положение (разблокирован).
(2) Держите слегка нажатой кнопку PHOTO до тех пор, пока не появится требуемое неподвижное изображение. Зеленая метка ● прекратит мигать и затем загорится. Яркость изображения и фокусировка настраиваются по центру изображения и фиксируются. Запись пока не начнется.
(3) Нажмите кнопку PHOTO сильнее. Изображение, отображаемое на экране, будет записано на "Memory Stick". Запись будет завершена, когда исчезнет индикатор в виде полоски.



[a] Number of images can be recorded on the "Memory Stick"
[b] Number of recorded images

[a] Количество изображений, которое может быть записано на "Memory Stick"
[b] Количество записанных изображений

Recording still images on "Memory Stick"s – Memory Photo recording

When the POWER switch is set to MEMORY
The following functions do not work:
- Wide TV mode
- Digital zoom
- SteadyShot function
- SUPER NIGHTSHOT
- Fader
- Picture effect
- Digital effect
- Title
- Low lux mode (The indicator flashes.)
- Sports lesson mode (The indicator flashes.)

When you are recording a still image
You can neither turn off the power nor press PHOTO.

When you press PHOTO on the Remote Commander
Your camcorder immediately records the image that is on the screen when you press the button.

Note
When recording still images at step 2 with the PHOTO button pressed lightly, the image momentarily flickers. This is not a malfunction.

When recording in memory mode
The angle of view is a little increased than one in CAMERA mode.

Запись неподвижных изображений на "Memory Stick" – Запись фотографий в память

Если переключатель POWER установлен в положение MEMORY
Следующие функции не работают:
- Широкоэкранный телевизионный режим
- Цифровая трансфокация
- Функция устойчивой съемки SteadyShot
- SUPER NIGHTSHOT
- Фейдер
- Эффект изображения
- Цифровой эффект
- Титр
- Режим низкой освещенности (Индикатор мигает.)
- Режим спортивных состязаний (Индикатор мигает.)

Если Вы записываете неподвижное изображение
Вы не можете выключить питание или нажать кнопку PHOTO.

Если нажать кнопку PHOTO на пульте дистанционного управления
Ваша видеокамера сразу же запишет изображение, которое будет на экране в момент нажатия кнопки.

Примечание
При записи неподвижных изображений в пункте 2, когда слегка нажата кнопка PHOTO, изображение кратковременно мигает. Однако это не является неисправностью.

При записи в режиме памяти
Угол изображения становится немного больше, чем в режиме CAMERA.

Recording still images on "Memory Stick"s – Memory Photo recording

Recording images continuously

You can record still pictures continuously. Select one of the two modes described below before recording.

Continuous mode [a] (DCR-TRV20E only)
When the image size is set to 1152×864, you can record up to four pictures continuously.
When the image size is set to 640×480, you can record up to 16 pictures continuously. The number of recorded photos in continuous mode depends on the capacity of the "Memory Stick".

Multi screen mode [b] (Recording image size is 640×480)
You can record nine still pictures continuously on a single page.

Запись неподвижных изображений на "Memory Stick" – Запись фотографий в память

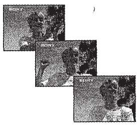
Непрерывная запись изображений

Вы можете записывать изображения непрерывно. Выберите один из двух режимов, описанных ниже, перед записью.

Непрерывный режим [a] (только для модели DCR-TRV20E)
Когда размер изображения устанавливается на 1152×864, то можно записывать не более четырех изображений непрерывно.
Когда размер изображения устанавливается на 640×480, то можно записывать не более 16 изображений непрерывно. Количество записываемых фотоснимков в режиме непрерывной записи зависит от емкости "Memory Stick".

Многоэкранный режим [b] (Размер изображения 640×480)
Можно записывать девять неподвижных изображений непрерывно на одной странице.

[a]



[b]

While pressing down PHOTO, your camcorder continuously record maximum number of still pictures depending on the image size.
When you stop pressing, the recording stops.

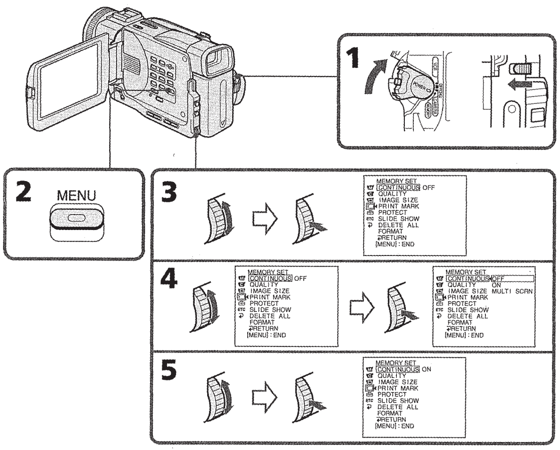
При нажатой кнопке PHOTO, видеокамера непрерывно записывает максимальное количество изображений в зависимости от их размера.
Если кнопку отпустить, запись остановится.

Recording still images on "Memory Stick"s – Memory Photo recording

(1) Set the POWER switch to MEMORY. Make sure that the LOCK switch is set to the left (unlock) position.
(2) Press MENU to display the menu.
(3) Turn the SEL/PUSH EXEC dial to select ▣, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select CONTINUOUS, then press the dial.
(5) Turn the SEL/PUSH EXEC dial to select the desired setting, then press the dial.

Запись неподвижных изображений на "Memory Stick" – Запись фотографий в память

(1) Установите переключатель POWER в положение MEMORY. Убедитесь, что переключатель LOCK установлен в левое положение (разблокирован).
(2) Нажмите кнопку MENU для отображения меню.
(3) Поверните диск SEL/PUSH EXEC для выбора установки ▣, а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора CONTINUOUS, а затем нажмите на диск.
(5) Поверните диск SEL/PUSH EXEC для выбора желаемой установки, а затем нажмите на диск.



If the capacity of the "Memory Stick" becomes full
"▨ FULL" appears on the LCD screen or in the viewfinder, and you cannot record still pictures on this "Memory Stick".

Если "Memory Stick" переполняется
На экране ЖКД или в видоискателе появится индикатор "▨ FULL", и будет невозможно записывать неподвижные изображения на "Memory Stick".

Recording still images on "Memory Stick"s – Memory Photo recording

Continuous shooting settings

Setting	Meaning (indicator on the screen)
OFF	Your camcorder shoots one image at a time. (no indicator)
ON (DCR-TRV20E only)	Your camcorder shoots up to 16 still images at about 0.5 sec intervals. (▣)
MULTI SCRN	Your camcorder shoots nine still images at about 0.5 sec intervals and displays the images on a single page divided into nine boxes. Still images are recorded in 640×480 size. (▦)

The number of images in continuous shooting
The number of images you can shoot continuously varies depending on the image size and the capacity of the "Memory Stick".

Image size	The number of images
640×480	Up to 16 images
1152×864	Up to 4 images

Note on using the video flash light (not supplied)
The video flash light does not work in the continuous or multi screen mode if you install it to the intelligent accessory shoe.

Запись неподвижных изображений на "Memory Stick" – Запись фотографий в память

Установки непрерывной съемки

Установка	Значение (индикатор на экране)
OFF	Ваша видеокамера делает один снимок за раз (без индикатора).
ON (только для модели DCR-TRV20E)	Видеокамера снимает не более 16 неподвижных изображений с интервалами примерно 0,5 сек. (▣)
MULTI SCRN	Видеокамера снимает девять неподвижных изображений с интервалами примерно 0,5 сек и отображает изображения на одной странице, разделенной на девять прямоугольников. Размер записываемых неподвижных изображений 640×480. (▦)

Количество изображений при непрерывной съемке
Количество изображений, которые можно снимать непрерывно, изменяется в зависимости от размера изображения и емкости "Memory Stick".

Размер изображения	Количество изображений
640×480	Не более 16 изображений
1152×864	Не более 4 изображений

Примечание по использованию видеовспышки (не прилагается)
Видеовспышка не работает в непрерывном или многоэкранном режиме, если она установлена в держатель для вспомогательных устройств.

Recording still images on "Memory Stick"s – Memory Photo recording

Self-timer memory photo recording

You can make a memory photo recording with the self-timer. This mode is useful when you want to record yourself.

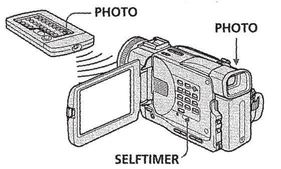
(1) Set the POWER switch to MEMORY. Make sure that the LOCK switch is set to the left (unlock) position.
(2) Press SELFTIMER in the standby mode. The ⏲ (self-timer) indicator appears on the LCD screen or in the viewfinder.
(3) Press PHOTO.
Self-timer starts counting down from 10 with a beep sound. In the last two seconds of the countdown, the beep sound gets faster, then recording starts automatically.

Запись неподвижных изображений на "Memory Stick" – Запись фотографий в память

Фотосъемка по таймеру самозапуска с сохранением в памяти

Можно выполнять фотосъемку с сохранением в памяти по таймеру самозапуска. Этот режим полезен в том случае, если Вы хотите выполнить запись собственного изображения.

(1) Установите переключатель POWER в положение MEMORY. Убедитесь, что переключатель LOCK установлен в левое положение (разблокирован).
(2) Нажмите кнопку SELFTIMER в режиме ожидания. Индикатор ⏲ (таймер самозапуска) появится на экране ЖКД или в видоискателе.
(3) Нажмите кнопку PHOTO.
Таймер самозапуска начнет обратный отсчет с 10 с зуммерным сигналом. В последние две секунды обратного отсчета зуммерный сигнал будет звучать чаще, а затем автоматически начнется запись.



To cancel self-timer recording
Press SELFTIMER so that the ⏲ (self-timer) indicator disappears from on the LCD screen or in the viewfinder. You cannot cancel the self-timer recording using the Remote Commander.

Note
The self-timer recording mode is automatically cancelled when:
- Self-timer recording is finished.
- The POWER switch is set to OFF (CHG) or VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E).

To check the picture to be recorded
You can check the picture with pressing the PHOTO button lightly, then press it deeper to capture.

Для отмены записи по таймеру самозапуска
Нажмите кнопку SELFTIMER, чтобы индикатор ⏲ (таймер самозапуска) исчез с экрана ЖКД или в видоискателе. Запись по таймеру самозапуска невозможно отменить с помощью пульта дистанционного управления.

Примечание
Режим записи по таймеру самозапуска будет автоматически отменен в случаях:
- Окончания записи по таймеру самозапуска.
- Переключатель POWER установлен в положение OFF (CHG) или VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E).

Для проверки записываемого изображения
Можно проверить изображение, слегка нажав кнопку PHOTO, затем нажмите ее сильнее для выполнения съемки.

Superimposing a still picture in a "Memory Stick" on a moving picture – MEMORY MIX

– DCR-TRV11E/TRV20E only

You can superimpose a still picture you have recorded on a "Memory Stick" on the top of the moving picture you are recording.

M. CHROM (Memory chromakey)
You can swap a blue area of a still picture such as an illustration or a frame with a moving picture.

M. LUMI (Memory luminancekey)
You can swap a brighter area of a still picture such as a handwritten illustration or title with a moving picture. Record a title on a "Memory Stick" before a trip or event for convenience.

C. CHROM (Camera chromakey)
You can superimpose a moving picture on the top of a still picture such as a picture can be used as background. Shoot the subject against a blue background. The blue area of the moving picture will be swapped with a still picture.

M. OVERLAP (Memory overlap)
You can make a moving image fade in on top of a still image.

Наложение неподвижного изображения из "Memory Stick" на подвижное изображение – MEMORY MIX

– Только для модели DCR-TRV11E/TRV20E

Вы можете наложить неподвижное изображение, записанное на "Memory Stick", поверх записываемого подвижного изображения.

M. CHROM (Кнопка цветности памяти)
Можно заменять синюю область неподвижного изображения, например, рисунок или кадр подвижным изображением.

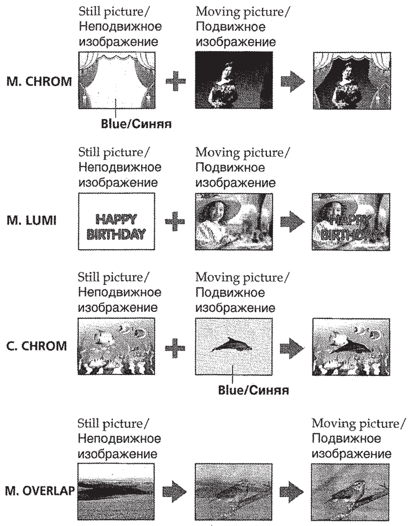
M. LUMI (Кнопка яркости памяти)
Вы можете менять местами более яркую часть неподвижного изображения, такого как рисунок или титр и подвижное изображение. Перед путешествием или каким-нибудь событием запишите титр для удобства на "Memory Stick".

C. CHROM (Кнопка цветности видеокамеры)
Подвижное изображение можно наложить поверх неподвижного изображения, например, рисунка, используемого в качестве фона. Снимите объект на синем фоне. Синяя часть подвижного изображения будет заменена на неподвижное изображение.

M. OVERLAP (Наложение с помощью памяти)
Можно сделать так, чтобы подвижное изображение постепенно появлялось поверх неподвижного изображения.

Superimposing a still picture in a "Memory Stick" on a moving picture – MEMORY MIX

Наложение неподвижного изображения из "Memory Stick" на подвижное изображение – MEMORY MIX



Before operation
- Insert a mini DV tape for recording into your camcorder.
- Insert a recorded "Memory Stick" into your camcorder.

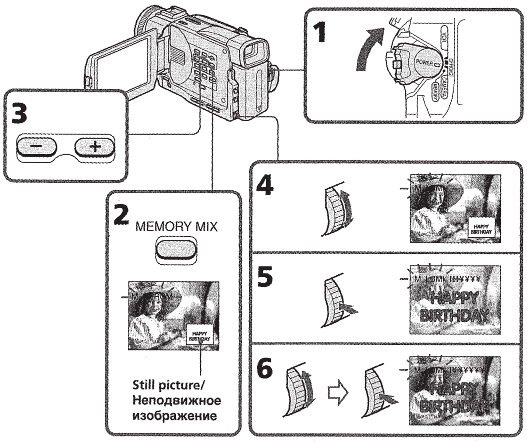
Перед началом работы
- Вставьте ленту мини DV для записи в видеокамеру.
- Вставьте записанную "Memory Stick" в видеокамеру.

Superimposing a still picture in a "Memory Stick" on a moving picture – MEMORY MIX

(1) Set the POWER switch to CAMERA.
(2) Press MEMORY MIX in the standby mode.
The last recorded or last composed image appears on the lower part of the screen as a thumbnail image.
(3) Press MEMORY+/– to select the still picture you want to superimpose.
To see the previous image, press MEMORY –.
To see the next image, press MEMORY+.
(4) Turn the SEL/PUSH EXEC dial to select the desired mode.
The mode changes as follows:
M.CHROM → M.LUMI → C.CHROM → M.OVERLAP
(5) Press the SEL/PUSH EXEC dial.
The still picture is superimposed on the moving picture. Your camcorder automatically returns to the standby mode.
(6) Turn the SEL/PUSH EXEC dial to adjust the effect.
When M.OVERLAP is selected, no adjustment is necessary.
(7) Press START/STOP to start recording.

Наложение неподвижного изображения из "Memory Stick" на подвижное изображение – MEMORY MIX

(1) Установите переключатель POWER в положение CAMERA.
(2) Нажмите кнопку MEMORY MIX в режиме ожидания.
Последнее записанное или скомпонованное изображение появится в нижней части экрана в виде небольшого изображения.
(3) Нажмите кнопку MEMORY+/– для выбора неподвижного изображения, которое Вы хотите наложить на подвижное.
Для просмотра предыдущего изображения нажмите кнопку MEMORY –.
Для просмотра следующего изображения нажмите кнопку MEMORY +.
(4) Поверните диск SEL/PUSH EXEC для выбора нужного режима.
Режим будет изменяться следующим образом:
M.CHROM → M.LUMI → C.CHROM → M.OVERLAP
(5) Нажмите на диск SEL/PUSH EXEC.
Неподвижное изображение будет наложено на подвижное. Ваша видеокамера автоматически вернется в режим ожидания.
(6) Поверните диск SEL/PUSH EXEC для регулировки эффекта.
Когда выбран режим M.OVERLAP, настроек не требуется.
(7) Нажмите кнопку START/STOP для начала записи.



Superimposing a still picture in a "Memory Stick" on a moving picture – MEMORY MIX

Items to adjust

M. CHROM	The colour (blue) scheme of the area in the still picture which is to be swapped with a moving picture
M. LUMI	The colour (bright) scheme of the area in the still picture which is to be swapped with a moving picture
C. CHROM	The colour (blue) scheme of the area in the moving picture which is to be swapped with a still picture
M. OVERLAP	No adjustment necessary

The fewer bars there are on the screen, the stronger the effect.

To change the still picture to be superimposed

Do either of the following:
- Press MEMORY+/– before step 6.
- Press the SEL/PUSH EXEC dial befor step 6, and repeat the procedure form step 4.

To change the mode setting

Press the SEL/PUSH EXEC dial before step 6, and repeat the procedure from step 4.

To cancel M. CHROM/M. LUMI/C. CHROM/M. OVERLAP

Press MEMORY MIX again.

Наложение неподвижного изображения из "Memory Stick" на подвижное изображение – MEMORY MIX

Пункты для регулировки

M. CHROM	Цветовая гамма (синяя) области неподвижного изображения, которую нужно заменить подвижным изображением
M. LUMI	Цветовая гамма (светлая) области неподвижного изображения, которую нужно заменить подвижным изображением
C. CHROM	Цветовая гамма (синяя) области подвижного изображения, которую нужно заменить неподвижным изображением
M. OVERLAP	Регулировок не требуется

Чем меньше полос на экране, тем сильнее эффект.

Для изменения неподвижного изображения, которое требуется наложить

Выполните одно из следующих действий.
- Нажмите кнопку MEMORY+/– перед пунктом 6.
- Нажмите на диск SEL/PUSH EXEC перед пунктом 6 и повторите процедуру с пункта 4.

Для изменения установки режима

Нажмите на диск SEL/PUSH EXEC перед пунктом 6 и повторите процедуру с пункта 4.

Для отмены M. CHROM/M. LUMI/ C. CHROM/M. OVERLAP

Нажмите кнопку MEMORY MIX еще раз.

Superimposing a still picture in a "Memory Stick" on a moving picture – MEMORY MIX

During recording
You cannot change the mode setting.

The "Memory Stick" supplied with your camcorder has stored 20 images
- For M.CHROM : 18 images (such as a frame) 100-0001 ~ 100-0018
- For C.CHROM : 2 images (such as a background) 100-0019 ~ 100-0020

Sample images
Sample images stored in the "Memory Stick" supplied with your camcorder are protected (p. 164).

If a still picture to be superimposed has lots of white areas
The thumbnail image may not be displayed clearly.

Image data modified with personal computers or shot with other equipment
You may not be able to play them back with your camcorder.

Note
When the overlapping still picture has a large amount of white, the thumbnail image of the picture may not be clear.

Наложение неподвижного изображения из "Memory Stick" на подвижное изображение – MEMORY MIX

Во время записи
Вы не можете изменять установку режима.

"Memory Stick", прилагаемая к видеокамере, вмещает 20 изображений
- Для M.CHROM : 18 изображений (таких как кадр) 100-0001 ~ 100-0018
- Для C.CHROM : 2 изображения (таких как фон) 100-0019 ~ 100-0020

Образцы изображений
Образцы изображений, сохраненные на "Memory Stick", прилагаемой к видеокамере, защищены (стр. 164).

Если в неподвижном изображении, которое требуется наложить, существует много областей белого цвета
Мини-изображение может отображаться не совсем отчетливо.

Данные изображения, измененные с помощью персонального компьютера или снятые с помощью другой аппаратуры
Вы не сможете воспроизвести их с помощью Вашей видеокамеры.

Примечание
Если на налагаемом неподвижном изображении имеются большие белые области, небольшое изображение может быть не совсем четким.

Recording an image from a mini DV tape as a still image

– DCR-TRV11E/TRV20E only

Your camcorder can read moving picture data recorded on a mini DV tape and record it as a still image on a "Memory Stick".

Before operation
- Insert a recorded mini DV tape into your camcorder.
- Insert a "Memory Stick" into your camcorder.

(1) Set the POWER switch to VCR (DCR-TRV20E) /PLAYER (DCR-TRV11E).
(2) Press ►. The picture recorded on the mini DV tape is played back.
(3) Keep pressing PHOTO lightly until the picture from the mini DV tape freezes. "CAPTURE" appears on the LCD screen or in the viewfinder. Recording does not start yet.
(4) Press PHOTO deeper. The image displayed on the screen will be recorded on a "Memory Stick". Recording is complete when the bar scroll indicator disappears.

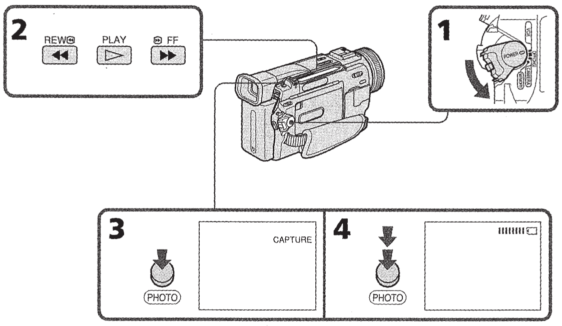
Запись изображения с ленты мини DV как неподвижного изображения

– Только для модели DCR-TRV11E/TRV20E

Ваша видеокамера может считывать данные движущегося изображения, записанные на ленте мини DV, и записывать их как неподвижные изображения на "Memory Stick".

Перед началом работы
- Вставьте записанную ленту мини DV в видеокамеру.
- Вставьте "Memory Stick" в Вашу видеокамеру.

(1) Установите переключатель POWER в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E).
(2) Нажмите ►. Начнется воспроизведение изображения, записанного на ленте мини DV.
(3) Держите слегка нажатой кнопку PHOTO до тех пор, пока изображение с ленты мини DV не будет "заморожено". На экране ЖКД или в видоискателе появится индикация "CAPTURE". Запись пока не начнется.
(4) Нажмите кнопку PHOTO сильнее. Изображение, отображаемое на экране, будет записано на "Memory Stick". Запись будет завершена, когда исчезнет индикатор в виде полоски.



Recording an image from a mini DV tape as a still image

Image size of still pictures
Image size is automatically set to 640 × 480.

When the access lamp is lit or flashing
Never shake or strike the unit. As well do not turn the power off , eject a "Memory Stick" or remove the battery pack. Otherwise, the image data breakdown may occur.

If "⊠" appears on the LCD screen or in the viewfinder
The inserted "Memory Stick" is incompatible with your camcorder because its format does not conform with your camcorder. Check the format of the "Memory Stick".

If you press PHOTO lightly in the playback mode
Your camcorder stops momentarily.

Sound recorded on a mini DV tape
You cannot record the audio from a mini DV tape.

Titles have already recorded on mini DV tapes
You cannot record the titles on "Memory Stick"s. The title does not appear while you are recording a still picture with PHOTO.

When you press PHOTO on the Remote Commander
Your camcorder immediately records the image that is on the screen when you press the button.

Запись изображения с ленты мини DV как неподвижного изображения

Размер неподвижных изображений
Размер изображений автоматически устанавливается равным 640 × 480.

Если лампочка обращения горит или мигает
Никогда не трясите видеокамеру и не стучите по ней. Также не выключайте питание, не извлекайте "Memory Stick" из отсека и не снимайте батарейный блок. В противном случае данные изображения могут быть повреждены.

Если на экране ЖКД или в видоискателе появится индикация "⊠"
Установлена "Memory Stick", которая не совместима с видеокамерой, поскольку ее формат не соответствует формату видеокамеры. Проверьте формат "Memory Stick".

Если в режиме воспроизведения слегка нажать кнопку PHOTO
Видеокамера сразу же остановится.

Звук, записанный на ленту мини DV
Вы не можете записывать звук с ленты мини DV.

Титры, уже записанные на ленты мини DV
Титры нельзя записывать на "Memory Stick". Титр не появится во время записи неподвижного изображения с помощью кнопки PHOTO.

Если нажать кнопку PHOTO на пульте дистанционного управления
Ваша видеокамера сразу же запишет изображение, которое будет на экране в момент нажатия кнопки.

Recording an image from a mini DV tape as a still image

Recording a still image from other equipment

– DCR-TRV20E only

(1) Set the POWER switch to VCR and set DISPLAY in ETC to LCD in the menu settings. Set A/V → DV OUT in VI to OFF in the menu settings.
(2) Play back the recorded tape, or turn the TV on to see the desired programme.
The image of the other equipment is displayed on the LCD screen or in the viewfinder.
(3) Follow the steps 3 and 4 on page 149.

Запись изображения с ленты мини DV как неподвижного изображения

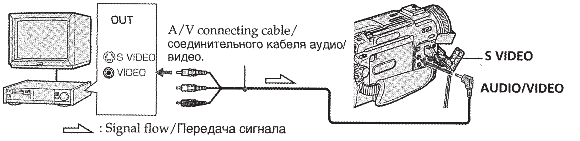
Запись неподвижного изображения с другого оборудования

– Только для модели DCR-TRV20E

(1) Установите переключатель POWER в положение VTR и команду DISPLAY в меню ETC в положение LCD в установках меню. Установите команду A/V → DV OUT в положение VI OFF в установках меню.
(2) Начните воспроизведение записанной ленты или включите телевизор для просмотра желаемой программы.
Изображение с другого оборудования отображается на экране ЖКД или в видоискателе.
(3) Выполните пункты 3 и 4 на стр. 149.

When recording the image through the i DV IN/OUT jack

При записи изображения через гнездо AUDIO/VIDEO



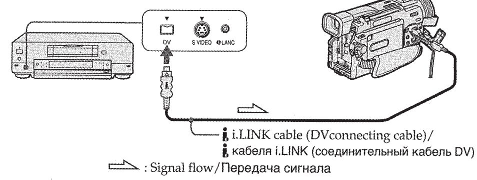
⇨ : Signal flow/Передача сигнала

Connect the yellow plug of the A/V connecting cable to the video jack on the VCR or the TV.

Подсоедините желтый штекер соединительного кабеля аудио/видео к гнезду видеосигнала на видеомагнитофоне или телевизоре.

When recording the image through the i DV IN/OUT jack

При записи изображения через гнездо i DV IN/OUT


DV
S VIDEO
LANC
i.LINK cable (DVconnecting cable)/
кабеля i.LINK (соединительный кабель DV)

⇨ : Signal flow/Передача сигнала

Connect using an S video cable (not supplied) to obtain high-quality pictures
With this connection, you do not need to connect the yellow (video) plug of the A/V connecting cable.
Connect an S video cable (not supplied) to the S video jacks of both your camcorder and the VCR. This connection produces higher quality DV format pictures.

Выполните подсоединение с помощью кабеля S видео (не прилагается) для получения высококачественных изображений
При таком соединении Вам не нужно подключать желтый (видео) штекер соединительного кабеля аудио/видео.
Подсоедините кабель S видео (не прилагается) к гнездам S видео на видеокамере и видеомагнитофоне.
При данном подсоединении Вы сможете получить высококачественные изображения формата DV.

Copying still images from a mini DV tape – Photo save

– DCR-TRV11E/TRV20E only
Using the search function, you can automatically take in only still images from mini DV tapes and record them on a "Memory Stick" in sequence.

Before operation
- Insert a recorded mini DV tape into your camcorder and rewind the tape.
- Insert a "Memory Stick" into your camcorder.

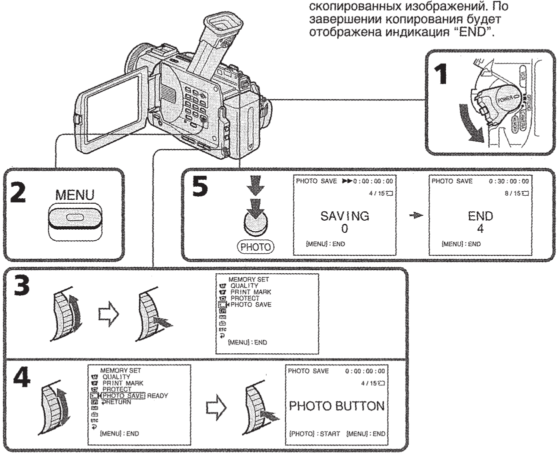
(1) Set the POWER switch to VCR (DCR-TRV20E) /PLAYER (DCR-TRV11E).
(2) Press MENU to display the menu.
(3) Turn the SEL/PUSH EXEC dial to select ⊡, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select PHOTO SAVE, then press the dial. "PHOTO BUTTON" appears on the LCD screen or in the viewfinder.
(5) Press PHOTO deeper. The still image from the mini DV tape is recorded on a "Memory Stick". The number of still images copied is displayed. "END" is displayed when copying is completed.

Копирование неподвижных изображений с ленты мини DV – Сохранение в памяти фотоснимков

– Только для модели DCR-TRV11E/TRV20E
С помощью функции поиска можно автоматически делать снимки с лент мини DV и последовательно записывать их на "Memory Stick".

Перед началом работы
- Вставьте записанную ленту мини DV в видеокамеру и перемотайте ее назад.
- Вставьте "Memory Stick" в Вашу видеокамеру.

(1) Установите переключатель POWER в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E).
(2) Нажмите кнопку MENU для отображения меню.
(3) Поверните диск SEL/PUSH EXEC для выбора установки ⊡, а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора установки PHOTO SAVE, а затем нажмите на диск. На экране ЖКД или в видоискателе появится индикация "PHOTO BUTTON".
(5) Нажмите кнопку PHOTO сильнее. Неподвижное изображение на ленте мини DV запишется на "Memory Stick". Будет отображено количество неподвижных скопированных изображений. По завершении копирования будет отображена индикация "END".



Copying still images from a mini DV tape – Photo save

To stop or end copying
Press MENU.

When the memory of the "Memory Stick" is full
"MEMORY FULL" appears on the LCD screen or in the viewfinder, and the copying stops. Insert another "Memory Stick" and repeat the procedure from step 2.

Image size of still pictures
Image size is automatically set to 640 × 480.

When the access lamp is lit or flashing
Never shake or strike your camcorder. As well do not turn the power off, eject a "Memory Stick" or remove the battery pack. Otherwise, the image data breakdown may occur.

To record all the images recorded on the mini DV tape
Rewind the tape all the way back and start copying.

If the write-protect tab on the "Memory Stick" is set to LOCK
"NOT READY" appears when you select the item in the menu settings.

When you change "Memory Stick"s in the middle of copying
Your comcorder resumes copying from the last image recorded on the previous "Memory Stick".

Копирование неподвижных изображений с ленты мини DV – Сохранение в памяти фотоснимков

Для остановки или прекращения копирования
Нажмите кнопку MENU.

В случае переполнения "Memory Stick"
На экране ЖКД или в видоискателе появится индикация "MEMORY FULL", и копирование прекратится. Вставьте другую "Memory Stick" и повторите процедуру с пункта 2.

Размер неподвижных изображений
Размер изображений автоматически устанавливается равным 640 × 480.

Если лампочка обращения горит или мигает
Никогда не трясите видеокамеру и не стучите по ней. Кроме того, не выключайте питание, не извлекайте "Memory Stick" из отсека и не снимайте батарейный блок. В противном случае данные изображения могут быть повреждены.

Для записи всех изображений, записанных на ленте мини DV
Перемотайте ленту до конца назад и начните копирование.

Если лепесток защиты от записи на "Memory Stick" установлен в положение LOCK
При выборе элемента в установках меню появится индикация "NOT READY".

Если заменить "Memory Stick" в середине копирования
Видеокамера продолжит копирование с последнего изображения, записанного на предыдущей "Memory Stick".

Viewing a still picture – Memory photo playback

– DCR-TRV11E/TRV20E only
You can play back still images recorded on a "Memory Stick". You can also play back six images at a time by selecting the index screen.

Before operation
Insert a "Memory Stick" into your camcorder.

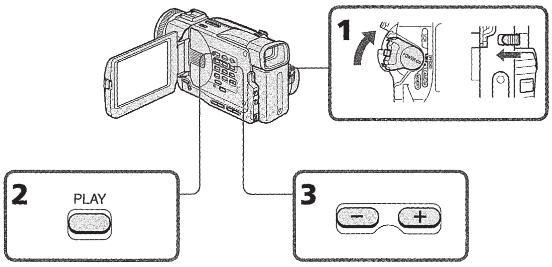
(1) Set the POWER switch to MEMORY or VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E). Make sure that the LOCK switch is set to the left (unlock) position.
(2) Press MEMORY PLAY. The last recorded image is displayed.
(3) Press MEMORY +/– to select the desired still image. To see the previous image, press MEMORY –. To see the next image, press MEMORY +.

Просмотр неподвижного изображения – Воспроизведение фотоснимков из памяти

– Только для модели DCR-TRV11E/TRV20E
Можно воспроизводить неподвижные изображения, записанные на "Memory Stick". Можно также воспроизводить одновременно шесть изображений путем выбора индексного экрана.

Перед началом работы
Вставьте "Memory Stick" в Вашу видеокамеру.

(1) Установите переключатель POWER в положение MEMORY или VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E). Убедитесь, что переключатель LOCK установлен в левое положение (разблокирован).
(2) Нажмите кнопку MEMORY PLAY. Появится последнее записанное изображение.
(3) Нажмите кнопку MEMORY +/– для выбора нужного неподвижного изображения. Для просмотра предыдущего изображения нажмите кнопку MEMORY –. Для просмотра следующего изображения нажмите кнопку MEMORY +.



To stop memory photo playback
Press MEMORY PLAY again.

Для остановки воспроизведения фотоснимков из памяти
Нажмите кнопку MEMORY PLAY еще раз.

Viewing a still picture – Memory photo playback

To play back recorded images on a TV screen
- Connect your camcorder to the TV with the A/V connecting cable supplied with your camcorder before the operation.
- When operating memory photo playback on a TV or on the LCD screen, the image quality may appear to have deteriorated. This is not a malfunction. The image data is as good as ever.
- Turn the audio volume of the TV down before operation, or noise (howling) may be output from the TV speakers.
- The message "⊠ NO FILE" appears when no image is recorded on the "Memory Stick".

Recording date
When you press DATA CODE, you can see the date of the recording.

Image data modified with personal computers or shot with other equipment
You may not be able to play them back with your camcorder.

Просмотр неподвижного изображения – Воспроизведение фотоснимков из памяти

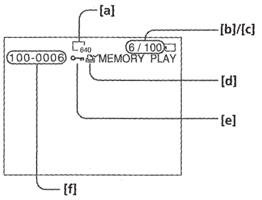
Для воспроизведения записанных изображений на экране телевизора
- Перед началом воспроизведения подсоедините видеокамеру к телевизору с помощью соединительного кабеля аудио/видео, который прилагается к видеокамере.
- При воспроизведении фотоснимков из памяти на экране телевизора или ЖКД качество изображения может ухудшиться. Однако это не является неисправностью. Данные изображения находятся в том же состоянии, как и прежде.
- Перед началом воспроизведения уменьшите громкость звука на телевизоре, иначе в акустической системе может быть слышен шум.
- Сообщение "⊠ NO FILE" появляется, когда изображение не записано на "Memory Stick".

Записанные данные
При нажатии кнопки DATA CODE можно просмотреть информацию о записи.

Данные изображения, измененные с помощью персонального компьютера или снятые с помощью другой аппаратуры
Вы не сможете воспроизвести их с помощью Вашей видеокамеры.

Screen indicators during still image playback

Экранные индикаторы во время воспроизведения неподвижных изображений



[a] Image size
[b] Image number
[c] Total number of recorded images
[d] Print mark
[e] Protect indicator
[f] Data Directory Number, File Number

[a] Размер изображения
[b] Номер изображения
[c] Общее количество записанных изображений
[d] Печатный знак
[e] Индикатор защиты
[f] Номер каталога данных, номер файла

Playing back six recorded images at a time (index screen)

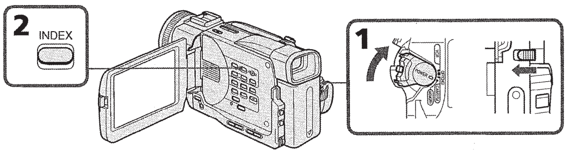
You can play back six recorded images at a time. This function is especially useful when searching for a particular image.

(1) Set the POWER switch to MEMORY or VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E). Make sure that the LOCK switch is set to the left (unlock) position.
(2) Press MEMORY INDEX.

Одновременное воспроизведение шести записанных изображений (индексный экран)

Можно воспроизводить шесть записанных изображений одновременно. Эта функция является особенно удобной при выполнении поиска отдельных изображений.

(1) Установите переключатель POWER в положение MEMORY или VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E). Убедитесь, что переключатель LOCK установлен в левое положение (разблокирован).
(2) Нажмите кнопку MEMORY INDEX.

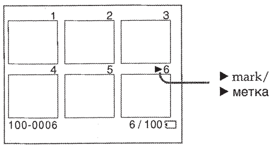


A red ▶ mark appears above the image that is displayed before changing to the index screen mode.

MEMORY –: to display the previous six images
MEMORY +: to display the following six images

Над изображением появится красная метка ▶, которая отображается перед переключением в режим индексного экрана.

MEMORY –: для отображения шести предыдущих изображений
MEMORY +: для отображения шести следующих изображений



To return to the normal playback screen (single screen)

Press MEMORY +/– to move the ▶ mark to the image you want to display on full screen, then press MEMORY PLAY.

Для возврата к экрану обычного воспроизведения (одиночный экран)

Нажмите кнопку MEMORY +/– для перемещения метки ▶ к изображению, которое необходимо отобразить во весь экран, затем нажмите кнопку MEMORY PLAY.

Note
When displaying the index screen, the number appears above each image. This indicates the order in which images are recorded on the "Memory Stick". These numbers are different from the data file names.

Files modified with personal computers
These files may not be displayed on the index screen. Image files shot with other equipment may not be displayed on the index screen either.

To make the display disappear
Press DISPLAY.

Примечание
При отображении индексного экрана над каждым изображением будет появляться номер. Он означает порядок, в котором изображения записаны на "Memory Stick". Эти номера отличаются от имен файлов данных.

Данные изображения, видоизмененные с помощью персонального компьютера
Эти файлы могут быть не отображены на индексном экране. Файлы изображений, снятых с помощью другой аппаратуры, могут не отображаться ни на одном из индексных экранов.

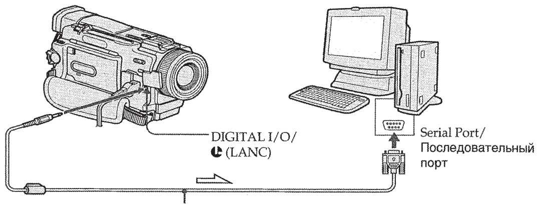
Для того, чтобы исчезла индикация
Нажмите кнопку DISPLAY.

Viewing the recorded images using a personal computer

The image data recorded with your camcorder is compressed in the JPEG format. If you use the application software, "PictureGear 4.1Lite" supplied with your camcorder, you can see images recorded on the "Memory Stick" on a computer screen. Use the PC serial cable supplied with your camcorder for this operation. You can playback the images on the "Memory Stick"s on the computer screen only in the memory mode.

Просмотр записанных изображений на персональном компьютере

Данные изображения, записанные с помощью Вашей видеокамеры, сжимаются до формата JPEG. С помощью поставляемого с видеокамерой прикладного программного обеспечения, "PictureGear 4.1Lite" можно просматривать изображения, записанные на "Memory Stick", на экране компьютера. Для этого необходимо использовать кабель последовательного интерфейса для ПК, прилагаемый к данной видеокамере. Изображения, записанные на "Memory Stick", можно воспроизводить на экране компьютера только в режиме памяти.



PC serial cable/кабель последовательного интерфейса для ПК

: Signal flow/Передача сигнала

Copying the image recorded on "Memory Stick"s to mini DV tapes

– DCR-TRV20E only

You can copy still images or titles recorded on "Memory Stick" and record them to a mini DV tape.

Before operation
- Insert mini DV tape for recording into your camcorder.
- Insert a "Memory Stick" into your camcorder.

(1) Set the POWER switch to VCR.
(2) Using the video control buttons, search a point where you want to record the desired still image. Set the mini DV tape to playback pause mode.
(3) Press ● REC and the button on its right simultaneously on your camcorder. The mini DV tape is set to the recording pause mode.
(4) Press MEMORY PLAY to play back the still image you want to copy.
(5) Press **II** to start recording and press **II** again to stop.
(6) If you have more to copy, repeat steps 4 and 5.

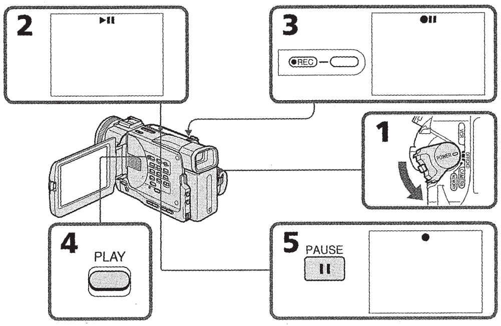
Копирование изображений, записанных в "Memory Stick", на ленты мини DV

– Только для модели DCR-TRV20E

Можно копировать неподвижные изображения или титры, записанные на "Memory Stick", и записывать их на ленту мини DV.

Перед началом работы
- Вставьте ленту мини DV для записи в видеокамеру.
- Вставьте "Memory Stick" в Вашу видеокамеру.

(1) Установите переключатель POWER в положение VCR.
(2) С помощью кнопок видеоконтроля найдите место, откуда необходимо начать запись нужного неподвижного изображения. Установите ленту мини DV в режим паузы воспроизведения.
(3) Одновременно нажмите кнопку ● REC и кнопку справа от нее на видеокамере. Лента мини DV установлена в режим паузы записи.
(4) Нажмите кнопку MEMORY PLAY для воспроизведения неподвижного изображения, которое необходимо скопировать.
(5) Нажмите кнопку **II**, чтобы начать запись. Для остановки записи снова нажмите кнопку **II**.
(6) Если необходимо также скопировать другие изображения, повторите пункты 4 и 5.



To stop copying in the middle

Press ■.

Для остановки копирования, не дожидаясь окончания

Нажмите ■.

During copying
You cannot operate the following buttons: MEMORY PLAY, MEMORY INDEX, MEMORY DELETE, MEMORY +, MEMORY –, and MEMORY MIX.

Note on the index screen
You cannot record the index screen.

If you press EDITSEARCH during pause mode
Memory playback stops.

Image data modified with personal computers or shot with other equipment
You may not be able to copy them with your camcorder.

If you press DISPLAY in the standby or recording mode
You can see memory playback and the file name indicators in addtion to the indicators pertinent to mini DV tape, such as the time code indicator.

Во время копирования
Нельзя использовать следующие кнопки: MEMORY PLAY, MEMORY INDEX, MEMORY DELETE, MEMORY +, MEMORY – и MEMORY MIX.

Примечание по индексному экрану
Индексный экран невозможно записать.

Если нажать кнопку EDITSEARCH во время паузы
Воспроизведение из памяти остановится.

Данные изображения, измененные с помощью персонального компьютера или снятые с помощью другой аппаратуры
Возможно, их нельзя будет скопировать с помощью видеокамеры.

Если нажать кнопку DISPLAY в режиме ожидания или записи
Кроме индикаторов, относящихся к лентам мини DV, например, индикатор кода времени, можно увидеть индикаторы воспроизведения из памяти и имени файла.

Enlarging still images recorded on "Memory Stick"s – Memory PB ZOOM

– DCR-TRV11E/TRV20E only
You can enlarge still images recorded on a "Memory Stick".

Before operation
Insert a "Memory Stick" into your camcorder.

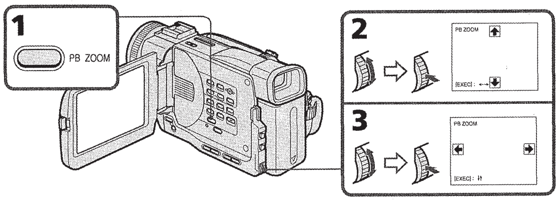
(1) In the memory playback mode, press PB ZOOM on your camcorder.
The still image is enlarged, and ↑↓←→ appears on the LCD screen or in the viewfinder.
(2) Turn SEL/PUSH EXEC dial to move the enlarged image, then press the dial.
↑ : The image moves downwards
↓ : The image moves upwards
(3) Turn SEL/PUSH EXEC dial to move the enlarged image, then press the dial.
→ : The image moves leftward (Turn the dial to upwards.)
← : The image moves rightward (Turn the dial to downwards.)

Увеличение неподвижных изображений, записанных на "Memory Stick" – Память PB ZOOM

– Только для модели DCR-TRV11E/TRV20E
Вы можете увеличить неподвижные изображения, записанные на "Memory Stick".

Перед началом работы
Вставьте "Memory Stick" в Вашу видеокамеру.

(1) В режиме воспроизведения из памяти нажмите кнопку PB ZOOM на видеокамере.
Неподвижное изображение будет увеличено, а на экране ЖКД или в видоискателе появится ↑↓←→.
(2) Поверните диск SEL/PUSH EXEC для перемещения увеличенного изображения, затем нажмите на диск.
↑ : Изображение перемещается вниз
↓ : Изображение перемещается вверх
(3) Поверните диск SEL/PUSH EXEC для перемещения увеличенного изображения, затем нажмите на диск.
→ : Изображение перемещается влево (Поверните диск вверх.)
← : Изображение перемещается вправо (Поверните диск вниз.)



To cancel the play zoom function
Press PB ZOOM again.

Для отмены функции трансфокации
Нажмите кнопку PB ZOOM еще раз.

Enlarging still images recorded on "Memory Stick"s– Memory PB ZOOM

Note
You cannot record the images enlarged by the PB ZOOM mode on "Memory Stick"s.

The PB ZOOM function is cancelled when the following buttons are pressed:
– MENU
– MEMORY PLAY
– MEMORY INDEX

In the PB ZOOM mode
The digital effect function does not work.

Pictures in the PB ZOOM mode
Pictures in the PB ZOOM mode are not output through the i DV IN/OUT jack (DCR-TRV20E) or i DV OUT jack (DCR-TRV11E).

Увеличение неподвижных изображений, записанных на "Memory Stick" – Память PB ZOOM

Примечание
Изображения, увеличенные с помощью режима трансфокации PB ZOOM, нельзя записать на "Memory Stick".

Функция PB ZOOM отменяется при нажатии следующих кнопок:
– MENU
– MEMORY PLAY
– MEMORY INDEX

В режиме PB ZOOM
Функция цифрового эффекта не работает.

Изображения в режиме PB ZOOM
Изображения в режиме PB ZOOM не передаются через гнездо входа/выхода i DV IN/OUT (DCR-TRV20E) или гнездо выхода i DV OUT (DCR-TRV11E).

Playing back images in a continuous loop – SLIDE SHOW

– DCR-TRV11E/TRV20E only
You can automatically play back images in sequence. This function is useful especially when checking recorded images or during a presentation.

Before operation
Insert a "Memory Stick" into your camcorder.

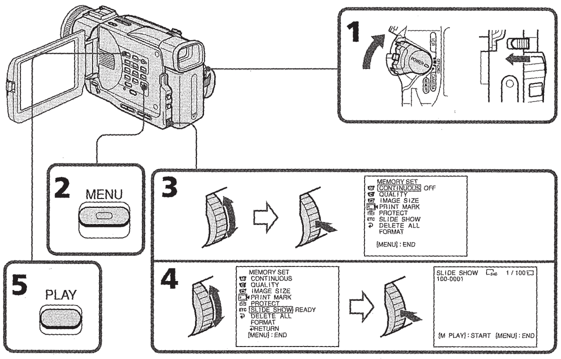
(1) Set the POWER switch to MEMORY. Make sure that the LOCK switch is set to the left (unlock) position.
(2) Press MENU to display the menu.
(3) Turn the SEL/PUSH EXEC dial to select ETC, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select SLIDE SHOW, then press the dial.
(5) Press MEMORY PLAY. Your camcorder plays back the images recorded on a "Memory Stick" in sequence.

Воспроизведение изображений в непрерывной последовательности по замкнутому циклу – Демонстрация слайдов

– Только для модели DCR-TRV11E/TRV20E
Вы можете автоматически воспроизводить изображения в непрерывной последовательности. Эта функция особенно удобна при проверке записанных изображений или во время презентации.

Перед началом работы
Вставьте "Memory Stick" в Вашу видеокамеру.

(1) Установите переключатель POWER в положение MEMORY. Убедитесь, что переключатель LOCK установлен в левое положение (разблокирован).
(2) Нажмите кнопку MENU для отображения меню.
(3) Поверните диск SEL/PUSH EXEC для выбора установки ETC, а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора установки SLIDE SHOW, а затем нажмите на диск.
(5) Нажмите кнопку MEMORY PLAY. Ваша видеокамера воспроизведет изображения, записанные на "Memory Stick", в непрерывной последовательности.



Playing back images in a continuous loop – SLIDE SHOW

To stop or end the slide show
Press MENU.

To pause during a slide show
Press MEMORY PLAY.

To start the slide show from a particular image
Select the desired image using MEMORY +/– buttons before step 2.

To view the recorded images on TV
Connect your camcorder to a TV with the A/V connecting cable supplied with your camcorder before operation.

If you change the "Memory Stick" during operation
The slide show does not operate. If you change the "Memory Stick", be sure to follow the steps again from the beginning.

Воспроизведение изображений в непрерывной последовательности по замкнутому циклу – Демонстрация слайдов

Для остановки или прекращения демонстрации слайдов
Нажмите кнопку MENU.

Для паузы во время демонстрации слайдов
Нажмите кнопку MEMORY PLAY.

Для начала показа слайдов с определенного изображения
Перед пунктом 2 выберите требуемое изображение с помощью кнопок MEMORY +/–.

Для просмотра записанных изображений на экране телевизора
Перед началом процедуры подсоедините видеокамеру к телевизору с помощью соединительного кабеля аудио/видео, прилагаемого к этой видеокамере.

Если заменить "Memory Stick" во время работы
Функция показа слайдов не будет работать. При замене "Memory Stick" выполните все действия с начала.

Preventing accidental erasure – Image protection

– DCR-TRV11E/TRV20E only

To prevent accidental erasure of important images, you can protect selected images.

Before operation

Insert a "Memory Stick" into your camcorder.

(1) Set the POWER switch to MEMORY or VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E). Make sure that the LOCK switch is set to the left (unlock) position.
(2) Play back the image you want to protect.
(3) Press MENU to display the menu.
(4) Turn the SEL/PUSH EXEC dial to select ▭, then press the dial.
(5) Turn the SEL/PUSH EXEC dial to select PROTECT, then press the dial.
(6) Turn the SEL/PUSH EXEC dial to select ON, then press the dial.
(7) Press MENU to make the menu display disappear. The "O-n" mark is displayed beside the data file name of the protected image.

Предотвращение случайного стирания – Защита изображения

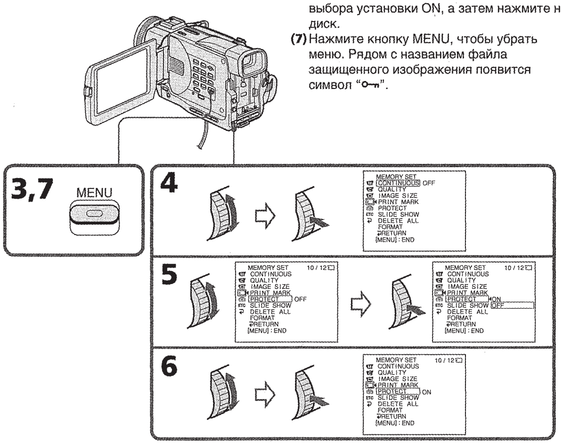
– Только для модели DCR-TRV11E/TRV20E

Для предотвращения случайного стирания важных изображений Вы можете защитить выбранные изображения.

Перед началом работы

Вставьте "Memory Stick" в Вашу видеокамеру.

(1) Установите переключатель POWER в положение MEMORY или VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E). Убедитесь, что переключатель LOCK установлен в левое положение (разблокирован).
(2) Воспроизведите изображение, которое Вы хотите защитить.
(3) Нажмите кнопку MENU для отображения меню.
(4) Поверните диск SEL/PUSH EXEC для выбора установки ▭, а затем нажмите на диск.
(5) Поверните диск SEL/PUSH EXEC для выбора установки PROTECT, а затем нажмите на диск.
(6) Поверните диск SEL/PUSH EXEC для выбора установки ON, а затем нажмите на диск.
(7) Нажмите кнопку MENU, чтобы убрать меню. Рядом с названием файла защищенного изображения появится символ "O-n".



Preventing accidental erasure – Image protection

To cancel image protection

Select OFF in step 6, then press the SEL/PUSH EXEC dial.

Note

Formatting erases all information on the "Memory Stick", including the protected image data. Check the contents of the "Memory Stick" before formatting.

If the write-protect tab on the "Memory Stick" is set to LOCK

You cannot carry out image protection.

Предотвращение случайного стирания – Защита изображения

Для отмены защиты изображения

Выберите установку OFF в пункте 6, а затем нажмите на диск SEL/PUSH EXEC.

Примечание

Во время форматирования удаляются все данные на "Memory Stick", включая данные защищенных изображений. Перед форматированием проверьте содержимое "Memory Stick".

Если лепесток защиты от записи на "Memory Stick" установлен в положение LOCK

Вы не сможете выполнить защиту изображения.

Deleting images

– DCR-TRV11E/TRV20E only

Deleting selected images

Before operation

Insert a "Memory Stick" into your camcorder.

(1) Set the POWER switch to MEMORY or VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E). Make sure that the LOCK switch is set to the left (unlock) position.
(2) Play back the image you want to delete (p. 154).
(3) Press MEMORY DELETE with a sharp-pointed object. "DELETE?" appears on the LCD screen or in the viewfinder.
(4) Press MEMORY DELETE again. The selected image is deleted.

Удаление изображений

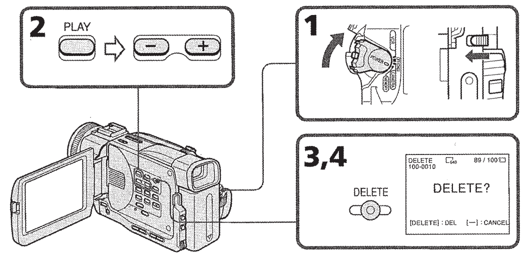
– Только для модели DCR-TRV11E/TRV20E

Удаление выбранных изображений

Перед началом работы

Вставьте "Memory Stick" в Вашу видеокамеру.

(1) Установите переключатель POWER в положение MEMORY или VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E). Убедитесь, что переключатель LOCK установлен в левое положение (разблокирован).
(2) Воспроизведите изображение, которое Вы хотите удалить (стр. 154).
(3) Нажмите кнопку MEMORY DELETE с помощью заостренного предмета. Индикатор "DELETE?" появится на экране ЖКД или в видоискателе.
(4) Нажмите кнопку MEMORY DELETE еще раз. Выбранное изображение будет удалено.



To cancel deleting an image

Press MEMORY – in step 4.

To delete an image displayed on the index screen

Press MEMORY +/– to move the ▶ indicator to the desired image and follow steps 3 and 4.

Notes

- To delete a protected image, first cancel image protection.
- Once you delete an image, you cannot restore it. Check the images to delete carefully before deleting them.
- You cannot delete images if the write-protect tab on a "Memory Stick" is set to LOCK.

Для отмены удаления изображения

Нажмите кнопку MEMORY – в пункте 4.

Для удаления изображения, отображаемого на индексном экране

Нажмите кнопку MEMORY +/– для перемещения индикатора ▶ к нужному изображению и выполните действия пунктов 3 и 4.

Примечания

- Для удаления защищенного изображения, сначала отмените защиту изображения.
- После удаления изображения Вы не сможете восстановить его. Внимательно проверьте изображения, прежде чем удалить их.
- Удаление изображений невозможно выполнить, если лепесток защиты от записи на "Memory Stick" установлен в положение LOCK.

Deleting images

Deleting all the images

You can delete all the unprotected images in a "Memory Stick".

Before operation

Insert a "Memory Stick" into your camcorder.

(1) Set the POWER switch to MEMORY. Make sure that the LOCK switch is set to the left (unlock) position.
(2) Press MENU to display the menu.
(3) Turn the SEL/PUSH EXEC dial to select ▭, then press the dial.
(4) Turn the SEL/PUSH EXEC dial to select DELETE ALL, then press the dial.
(5) Turn the SEL/PUSH EXEC dial to select OK, then press the dial. "OK" changes to "EXECUTE."
(6) Turn the SEL/PUSH EXEC dial to select EXECUTE, then press the dial. "DELETING" appears on the LCD screen or in the viewfinder. When all the unprotected images are deleted, "COMPLETE" is displayed.

Удаление изображений

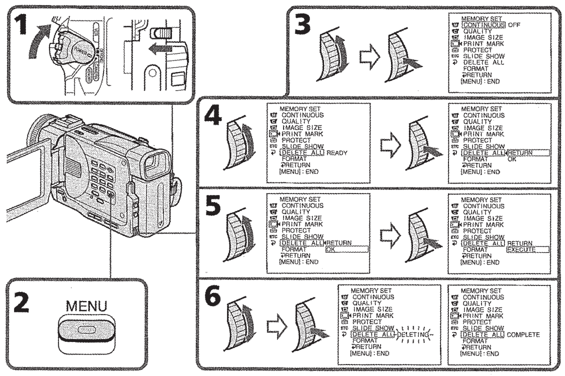
Удаление всех изображений

Вы можете удалить все незащищенные изображения на "Memory Stick".

Перед началом работы

Вставьте "Memory Stick" в Вашу видеокамеру.

(1) Установите переключатель POWER в положение MEMORY. Убедитесь, что переключатель LOCK установлен в левое положение (разблокирован).
(2) Нажмите кнопку MENU для отображения меню.
(3) Поверните диск SEL/PUSH EXEC для выбора установки ▭, а затем нажмите на диск.
(4) Поверните диск SEL/PUSH EXEC для выбора установки DELETE ALL, а затем нажмите на диск.
(5) Поверните диск SEL/PUSH EXEC для выбора установки OK, а затем нажмите на диск. Индикация "OK" изменится на индикацию "EXECUTE".
(6) Поверните диск SEL/PUSH EXEC для выбора установки EXECUTE, а затем нажмите на диск. Индикатор "DELETING" появится на экране ЖКД или в видоискателе. Когда все незащищенные изображения будут удалены, на дисплее появится индикация "COMPLETE".



Deleting images

To cancel deleting all the images in the "Memory Stick"

Select ⮐ RETURN in step 5, then press the SEL/PUSH EXEC dial.

While "DELETING" appears

Do not turn the POWER switch or press any buttons.

Удаление изображений

Для отмены удаления всех изображений на "Memory Stick"

Выберите ⮐ RETURN в пункте 5, затем нажмите на диск SEL/PUSH EXEC.

Во время отображения индикации "DELETING"

Не изменяйте положение переключателя POWER и не нажимайте никаких кнопок.

Writing a print mark – PRINT MARK

– DCR-TRV11E/TRV20E only

You can specify the recorded still image to print out. This function is useful for printing out still images later.

Your camcorder conforms with the DPOF (Digital Print Order Format) standard for specifying the still images to print out.

Before operation

Insert a "Memory Stick" into your camcorder.

(1) Set the POWER switch to MEMORY or VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E). Make sure that the LOCK switch is set to the left (unlock) position.
(2) Play back the image to be printed out.
(3) Press MENU to display the menu.
(4) Turn the SEL/PUSH EXEC dial to select 🗔, then press the dial.
(5) Turn the SEL/PUSH EXEC dial to select PRINT MARK, then press the dial.
(6) Turn the SEL/PUSH EXEC dial to select ON, then press the dial.
(7) Press MENU to make the menu display disappear. The "🖶✓" mark is displayed beside the data file name of the image with a print mark.

Запись печатных знаков – PRINT MARK

– Только для модели DCR-TRV11E/TRV20E

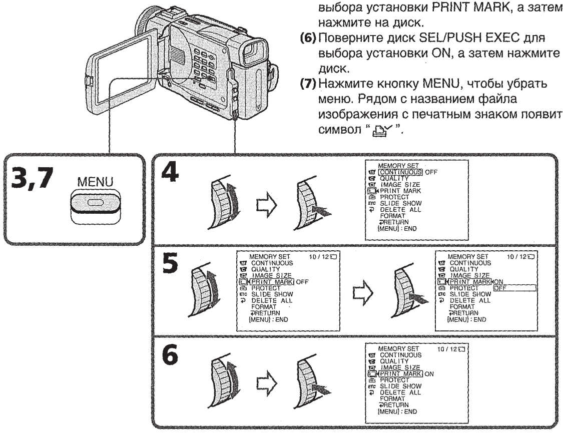
Вы можете указать записанные изображения для распечатки. Эта функция является полезной для распечатки неподвижных изображений позже.

Ваша видеокамера удовлетворяет требованиям стандарта DPOF (цифрой формат порядка печати) для подачи неподвижных изображений на распечатку.

Перед началом работы

Вставьте "Memory Stick" в Вашу видеокамеру.

(1) Установите переключатель POWER в положение MEMORY или VCR (DCR-TRV20E)/PLAYER (DCR-TRV11E). Убедитесь, что переключатель LOCK установлен в левое положение (разблокирован).
(2) Воспроизведите изображение, которое необходимо распечатать.
(3) Нажмите кнопку MENU для отображения меню.
(4) Поверните диск SEL/PUSH EXEC для выбора установки 🗔, а затем нажмите на диск.
(5) Поверните диск SEL/PUSH EXEC для выбора установки PRINT MARK, а затем нажмите на диск.
(6) Поверните диск SEL/PUSH EXEC для выбора установки ON, а затем нажмите на диск.
(7) Нажмите кнопку MENU, чтобы убрать меню. Рядом с названием файла изображения с печатным знаком появится символ "🖶✓".



Writing a print mark – PRINT MARK

To cancel writing print marks

Select OFF in step 6, then press the SEL/PUSH EXEC dial.

If the write-protect tab on the "Memory Stick" is set to LOCK

You cannot write print marks on still images.

Запись печатных знаков – PRINT MARK

Для отмены записи печатных знаков

Выберите установку OFF в пункте 6, а затем нажмите на диск SEL/PUSH EXEC.

Если лепесток защиты от записи на "Memory Stick" установлен в положение LOCK

Вы не сможете записать печатные знаки на неподвижных изображениях.

— Additional Information —

Usable cassettes

Selecting cassette types

You can use the MiniDV mini DV cassette only*. You cannot use any other 8 8 mm, Hi8 Hi8, D8 Digital8, VHS VHS, VHSC VHSC, S-VHS S-VHS, S-VHSC S-VHSC, β Betamax or DV DV cassette.

* There are two types of mini DV cassettes: with cassette memory and without cassette memory. Tapes with cassette memory have CM (Cassette Memory) mark.
We recommend you to use the tape with cassette memory.

The IC memory is mounted on this type of mini DV cassette. Your camcorder can read and write data such as dates of recording or titles, etc. to this memory.

The functions using the cassette memory require successive signals recorded on the tape. If the tape has a blank portion in the beginning or between the recorded portions, a title may not be displayed properly or the search functions may not work properly. Not to make any blank portion on the tape, operate the followings.

Press END SEARCH to go to the end of the recorded portion before you begin the next recording if you operate the followings:
- you have ejected the cassette while recording.
- you have played back the tape in the VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).
- you have used the edit search function.

If there is a blank portion or discontinuous signal on your tape, re-record from the beginning to the end of the tape concerning above.

The same result may occur when you record using a digital video camera recorder without a cassette memory function on a tape recorded by one with the cassette memory function.

CM4K mark on the cassette

The memory capacity of tapes marked with CM4K is 4KB. Your camcorder can accommodate tapes having a memory capacity of up to 16KB. 16KB tape is marked with CM16K.

Mini DV Digital Video Cassette This is the Mini DV mark.

CM Cassette Memory This is the Cassette Memory mark.

These are trademarks.

— Дополнительная информация —

Используемые кассеты

Выбор типа кассет

Можно использовать только кассеты MiniDV мини DV*. Нельзя использовать любые другие кассеты типа 8 8 мм, Hi8 Hi8, D8 Digital8, VHS VHS, VHSC VHSC, S-VHS S-VHS, S-VHSC S-VHSC, β Betamax или типа DV DV.

* Существует два типа кассет мини DV: с кассетной памятью и без кассетной памяти. На лентах с кассетной памятью имеется метка CM (кассетная память).
Рекомендуется использовать ленты с кассетной памятью.

На данном типе кассет мини DV установлена память в виде интегральной схемы. Ваша видеокамера может считывать и записывать данные, такие как даты записи, титры и т.п. в эту память.

Для функций, использующих кассетную память, требуется запись на ленту последовательных сигналов. Если на ленте имеется незаписанный участок в начале или между записанными частями, то титр может неправильно отображаться или функции поиска могут работать некорректно. Чтобы не оставлять незаписанных участков на ленте, выполните следующее.

Нажмите кнопку END SEARCH для перехода в конец записанного участка перед тем, как Вы начнете следующую запись, если:
- Вы извлекли кассету во время записи.
- Вы воспроизвели кассету в режиме VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).
- Вы использовали функцию монтажного поиска.

Если на Вашей ленте имеется незаписанный участок или прерывающийся сигнал, выполните перезапись с начала до конца с учетом вышесказанного.

Такой же результат может получиться при выполнении записи с помощью цифровой видеокамеры без функции кассетной памяти на ленту, записанную с использованием функции кассетной памяти.

CM4K Метка на кассете

Емкость памяти лент с меткой CM4K равна 4 Кб. Ваша видеокамера может работать с кассетами с емкостью памяти до 16Кб. 16Кб лента обозначается с помощью метки CM16K.

Mini DV Digital Video Cassette Это метка мини DV.

CM Cassette Memory Это метка кассетной памяти.

Торговые марки.

When you play back

Copyright signal

When you play back

Using any other video camera recorder, you cannot record on tape that has recorded a copyright control signals for copyright protection of software which is played back on your camcorder.

When you record (DCR-TRV20E only)

You cannot record software on your camcorder that contains copyright control signals for copyright protection of software.

"COPY INHIBIT" appears on the LCD screen, in the viewfinder or on the TV screen if you try to record such software.
Your camcorder does not record copyright control signals on the tape when it records.

Audio mode

12-bit mode: The original sound can be recorded in stereo 1, and the new sound in stereo 2 in 32 kHz. The balance between stereo 1 and stereo 2 can be adjusted by selecting AUDIO MIX in the menu settings during playback. Both sounds can be played back.
16-bit mode: A new sound cannot be recorded but the original sound can be recorded in high quality. Moreover, it can also play back sound recorded in 32 kHz, 44.1 kHz or 48 kHz. When playing back a tape recorded in the 16-bit mode, 16BIT indicator appears on the LCD screen or in the viewfinder.

When you play back a dual sound track tape

When you play back a dual sound track tape recorded in a stereo system, set "HiFi SOUND" to the desired mode in the menu settings (p. 116).

Sound from speaker

HiFi Sound Mode	Playing back a stereo tape	Playing back a dual sound track tape
STEREO	Stereo	Main sound and sub sound
1	Left sound	Main sound
2	Right sound	Sub sound

You cannot record dual sound programmes on your camcorder.

При воспроизведении

Сигнал авторского права

При воспроизведении

Используя любую другую видеокамеру, Вы не сможете выполнить запись на ленту, на которой записаны сигналы авторского права для защиты авторских прав программ, воспроизводимых на Вашей видеокамере.

Во время записи (только для модели DCR-TRV20E)

На этой видеокамере нельзя выполнять запись программы, которая содержит сигналы авторского права для защиты авторских прав.

При попытки записи такой программы на экране ЖКД, в видоискателе или на экране телевизора появится индикация "COPY INHIBIT".
Во время записи эта видеокамера не записывает сигналы авторского права на ленту.

Аудиорежим

12-битовый режим: Первоначальный звук может быть записан на стереофонический канал 1, а новый звук - на стереофонический канал 2 в режиме 32 кГц. Баланс между стереофоническим каналом 1 и стереофоническим каналом 2 можно отрегулировать путем выбора установки AUDIO MIX в установках MENU во время воспроизведения. Можно воспроизводить оба звука.
16-битовый режим: Нельзя записать новый звук, однако можно записать первоначальный звук высокого качества. Кроме того, звук можно воспроизводить в режимах 32 кГц, 44,1 кГц или 48 кГц. При воспроизведении ленты, записанной в 16-битовом режиме, на экране ЖКД или в видоискателе появится индикатор 16BIT.

При воспроизведении ленты с двойной звуковой дорожкой

При воспроизведении ленты с двойной звуковой дорожкой, записанной в стереофонической системе, установите нужный режим "HiFi SOUND" в установках меню (стр. 116)

Звук от динамика

Режим HiFi Sound	Воспроизведение стереофонической ленты	Воспроизведение ленты с двойной звуковой дорожкой
STEREO	Стерео	Основной и вспомогательный звук
1	Звук левого канала	Основной звук
2	Звук правого канала	Вспомогательный звук

На Вашей видеокамере невозможно записывать программы с двойной звуковой дорожкой.

Notes on the mini DV cassette

When affixing a label on the mini DV cassette

Be sure to affix a label only on the locations as illustrated below **[a]** so as not to cause malfunction of your camcorder.

After using the mini DV cassette

Rewind the tape to the beginning, put the cassette in its case, and store it in an upright position.

When the cassette memory function does not work

Reinsert a cassette. The gold-plated connector of mini DV cassettes may be dirty or dusty.

Cleaning gold-plated connector

If the gold-plated connector of mini DV cassettes is dirty or dusty, you may not operate the function using cassette memory. Clean up the gold-plated connector with cotton-wool swab, about every 10 times ejection of a cassette. **[b]**

Примечания по кассете мини DV

При прикреплении этикетки на кассету мини DV

Обязательно прикрепляйте этикетки только в местах, показанных на рисунках ниже **[a]**, чтобы они не привели к повреждению камеры.

После использования кассеты мини DV

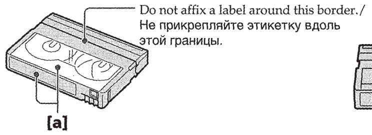
Перемотайте ленту к началу, положите кассету в футляр и храните ее в вертикальном положении.

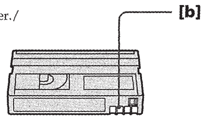
Если не работает функция кассетной памяти

Вставьте кассету еще раз. Позолоченный разъем кассет мини DV может быть загрязнен или запылен.

Очистка позолоченного разъема

Если позолоченный разъем кассет мини DV загрязнен или запылен, Вы не сможете управлять функцией с помощью кассетной памяти. Протирайте позолоченный разъем с помощью хлопчатобумажного тампона примерно после 10 раз использования кассеты. **[b]**


Do not affix a label around this border./
Не прикрепляйте этикетку вдоль этой границы.
[a]



About i.LINK

The DV jack on this unit is an i.LINK-compliant DV input/output jack. This section describes the i.LINK standard and its features.

What is i.LINK?

i.LINK is a digital serial interface for handling digital video, digital audio and other data in two directions between equipment having the i.LINK jack, and for controlling other equipment.
i.LINK-compatible equipment can be connected by a single i.LINK cable. Possible applications are operations and data transactions with various digital AV equipment. When two or more i.LINK-compatible equipment are connected to this unit in a daisy chain, operations and data transactions are possible with not only the equipment that this unit is connected to but also with other devices via the directly connected equipment.
Note, however, that the method of operation sometimes varies according to the characteristics and specifications of the equipment to be connected, and that operations and data transactions are sometimes not possible on some connected equipment.

Note

Normally, only one piece of equipment can be connected to this unit by the i.LINK cable (DV cable). When connecting this unit to i.LINK-compatible equipment having two or more i.LINK jacks (DV jacks), refer to the instruction manual of the equipment to be connected.

About the Name "i.LINK"

i.LINK is a more familiar term for IEEE 1394 data transport bus proposed by SONY, and is a trademark approved by many corporations.
IEEE 1394 is an international standard standardized by the Institute of Electrical and Electronic Engineers.

О кабеле i.LINK

Гнездо DV на данном аппарате является i.LINK-совместимым входным/выходным гнездом DV. В данном разделе описывается стандарт i.LINK и его особенности.

Что такое i.LINK?

i.LINK - это цифровой последовательный интерфейс для передачи цифрового видео- и аудиосигнала, а также других данных между оборудованием, имеющим гнездо i.LINK, в двух направлениях, а также для управления другим оборудованием.
i.LINK-совместимое оборудование должно подключаться с помощью одного кабеля i.LINK. Может использоваться для управления и передачи данных с различным цифровым аудио-видео оборудованием. Когда одно или несколько i.LINK-совместимых устройств подключены к данному аппарату по последовательной схеме опроса, управление и передача данных возможны не только для устройства, к которому подключен данный аппарат, но также и для других устройств через оборудование, подключенное напрямую. Следует однако иметь в виду, что метод управления иногда меняется в соответствии с характеристиками и спецификациями подключенного оборудования. Кроме этого, управление и передача данных иногда бывают невозможны на некоторых подключенных устройствах.

Примечание

Как правило, к данному аппарату с помощью кабеля i.LINK (кабеля DV) можно подключить только одно устройство. При подключении данного аппарата к i.LINK-совместимому устройству, имеющему два или более гнезд i.LINK (гнезд DV), обратитесь к инструкциям по эксплуатации подключаемого оборудования.

О названии "i.LINK"

i.LINK является более знакомым термином для шины передачи данных стандарта IEEE 1394, предложенной корпорацией SONY.
i.LINK является торговой маркой, признанной многими корпорациями.
IEEE 1394 - это международный стандарт, принятый институтом инженеров по электротехнике и радиоэлектронике.

i.LINK Baud rate

i.LINK's maximum baud rate varies according to the equipment. Three maximum baud rates are defined:
S100 (approx. 100Mbps*)
S200 (approx. 200Mbps)
S400 (approx. 400Mbps)

The baud rate is listed under "Specifications" in the instruction manual of each equipment. It is also indicated near the i.LINK jack on some equipment.
The maximum baud rate of equipment on which it is not indicated such as this unit is "S100".
When units are connected to equipment having a different maximum baud rate, the baud rate sometimes differs from the indicated baud rate.

***What is Mbps?**

Mbps stands for megabits per second, or the amount of data that can be sent or received in one second. For example, a baud rate of 100Mbps means that 100 megabits of data can be sent in one second.

i.LINK functions on this unit

For details on how to dub when this unit is connected to other video equipment having DV jacks, see page 82, 99.
This unit can also be connected to other i.LINK (DV) compatible equipment made by SONY (e.g. VAIO series personal computer) other than video equipment.
Before connecting this unit to a personal computer, make sure that application software supported by this unit is already installed on the personal computer.
For details on precautions when connecting this unit, also refer to the instruction manuals for the equipment to be connected.

Required i.LINK Cable

Use the Sony i.LINK 4-pin-to-4-pin cable (during DV dubbing).

i.LINK and ℹ are trademarks.

Скорость передачи в бодах по кабелю i.LINK

Максимальная скорость передачи в бодах по кабелю i.LINK изменяется в зависимости от оборудования. Определены три максимальные скорости передачи в бодах:
S100 (прибл. 100 Мбит/с*)
S200 (прибл. 200 Мбит/с)
S400 (прибл. 400 Мбит/с)

Скорость передачи в бодах указывается в разделе "Характеристики" инструкций по эксплуатации каждого устройства. На некоторых устройствах она указывается рядом с гнездом i.LINK.
Максимальная скорость передачи в бодах для устройства, на котором она не указана, например, для данного аппарата, равна "S100".
При подключении данного аппарата к устройству, имеющему другую максимальную скорость передачи в бодах, эта скорость иногда отличается от указанной.

***Что такое Мбит/с (Mbps)?**

Мбит/с соответствует числу мегабит в секунду или объему данных, которые можно принимать или передавать за одну секунду. Например, скорость передачи в бодах равная 100 Мбит/с означает, что в одну секунду можно передать 100 мегабит данных.

Функции i.LINK на данном аппарате

Более подробную информацию о перезаписи, когда этот аппарат подключен в другому видеооборудованию, имеющему гнезда DV, см. на стр. 82, 99.
Кроме видеооборудования, данный аппарат также можно подключать в другому i.LINK (DV) совместимому оборудованию фирмы SONY (например, к персональному компьютеру серии VAIO).
Перед подключением этого аппарата к персональному компьютеру, проверьте, установлено ли на компьютере программное обеспечение, прилагаемое к данному аппарату.
Более подробную информацию о мерах предосторожности при подключении данного аппарата также можно найти в инструкциях по эксплуатации подключаемого оборудования.

Требуемый кабель i.LINK

Используйте кабель Sony i.LINK 4-на-4-штырька (во время перезаписи цифрового видео).

i.LINK и торговые марки ℹ.

English

Troubleshooting

If you run into any problem using your camcorder, use the following table to troubleshoot the problem. If the problem persists, disconnect the power source and contact your Sony dealer or local authorized Sony service facility. If "C:□□:□□" appears on the LCD screen or in the viewfinder, the self-diagnosis display function has worked. See page 182.

In the recording mode

Symptom	Cause and/or Corrective Actions
START/STOP does not operate.	• The POWER switch is not set to CAMERA. → Set it to CAMERA. (p. 21) • The tape has run out. → Rewind the tape or insert a new one. (p. 20, 39) • The write-protect tab is set to expose the red mark. → Use a new tape or slide the tab. (p. 20) • The tape is stuck to the drum (moisture condensation). → Remove the cassette and leave your camcorder for at least one hour to acclimatize. (p. 195)
The power goes off.	• While being operated in CAMERA mode, your camcorder has been in the standby mode for more than five minutes. → Set the POWER switch to OFF (CHG) and then to CAMERA again. (p. 22)
The image on the viewfinder screen is not clear.	• The viewfinder lens is not adjusted. → Adjust the viewfinder lens. (p. 25)
The SteadyShot function does not work.	• STEADYSHOT is set to OFF in the menu settings. → Set it to ON. (p. 116)
The autofocusing function does not work.	• FOCUS is set to MAN. → Set it to AUTO. (p. 65) • Shooting conditions are not suitable for autofocus. → Adjust to focus manually. (p. 65)
The fader function does not work.	• The digital effect function is working. → Cancel it. (p. 60)
The picture does not appear in the viewfinder.	• The LCD panel is open. → Close the LCD panel. (p. 23)
A vertical band appears when you shoot a subject such as lights or a candle flame against a dark background.	• The contrast between the subject and background is too high. Your camcorder is not a malfunction.
A vertical band appears when you shoot a very bright subject.	• Your camcorder is not a malfunction.
Some tiny white spots appear on the LCD screen or in the viewfinder .	• Slow shutter, low lux or Super NightShot mode is activated. This is not a malfunction.
An unknown picture is displayed on the LCD screen or in the viewfinder.	• If 10 minutes elapse after you set the POWER switch to CAMERA or DEMO MODE is set to ON in the menu settings without a cassette inserted, your camcorder automatically starts the demonstration. → Insert a cassette and the demonstration stops. You can also cancel DEMO MODE. (p. 121)

Symptom	Cause and/or Corrective Actions
The picture is recorded in incorrect or unnatural colours.	• NIGHTSHOT is set to ON. → Set it to OFF. (p. 31)
Picture appears too bright, and the subject does not appear on the LCD screen or in the viewfinder.	• NIGHTSHOT is set to ON in a bright place. → Set it to OFF, or use the NightShot function in a dark place. (p. 31)
The click of the shutter does not sound.	• BEEP is set to OFF in the menu settings. → Set it to MELODY or NORMAL. (p. 116)
Black bands appear when you record TV or computer screen.	→ Set the STEADYSHOT in the menu settings to OFF. (p. 116)

In the playback mode

Symptom	Cause and/or Corrective Actions
The tape does not move when a video control button is pressed.	• The POWER switch is not set to VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E). → Set it to VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E). (p. 36)
The playback button does not work.	• The tape has run out. → Rewind the tape. (p. 39)
The playback picture is not clear or does not appear.	• The television's video channel is not adjusted correctly. → Adjust it. (p. 41)
There are horizontal lines on the picture or the playback picture is not clear or does not appear.	• The video head may be dirty. → Clean the heads using the cleaning cassette (not supplied). (p. 196)
No sound or only a low sound is heard when playing back a tape.	• The volume is turned to minimum. → Turn up the volume. (p. 36) • AUDIO MIX is set to ST2 in the menu settings. → Adjust AUDIO MIX. (p. 116)
Displaying the recorded date, date search function does not work.	• The tape has no cassette memory. → Use a tape with cassette memory. (p. 75, 171) • CM SEARCH is set to OFF in the menu settings. → Set it to ON. (p. 116) • The tape has a blank portion in the recorded portion. (p. 76)
The title search function does not work.	• The tape has no cassette memory. → Use a tape with cassette memory. (p. 73, 171) • CM SEARCH is set to OFF in the menu settings. → Set it to ON. (p. 116) • There is no title in the tape. → Superimpose the titles. (p. 108) • The tape has a blank portion in the recorded portion. (p. 74)
The new sound added to the recorded tape is not heard.	• AUDIO MIX is set to ST1 side in the menu settings. → Adjust AUDIO MIX. (p. 116)
The title is not displayed.	• TITLE DSPL is set to OFF in the menu settings. → Set it to ON. (p. 116)

(continued on the following page)

In the recording and playback modes

Symptom	Cause and/or Corrective Actions
The power does not turn on.	• The battery pack is not installed, or is dead or nearly dead. → Install a charged battery pack. (p. 13, 14) • The AC power adaptor is not connected to the mains. → Connect the AC power adaptor to the mains. (p. 19)
The end search function does not work.	• The tape was ejected after recording when using a tape without cassette memory. (p. 34, 40) • You have not recorded on the new cassette yet. (p. 34, 40)
The end search function does not work correctly.	• The tape has a blank portion in the beginning or middle.
The battery pack is quickly discharged.	• The operating temperature is too low. • The battery pack is not fully charged. → Charge the battery pack again. (p. 14) • The battery pack is completely dead, and cannot be recharged. → Replace with a new battery pack. (p. 13)
The battery remaining indicator does not indicate the correct time.	• You have used the battey pack in an extremely hot or cold environment for a long time. • The battery pack is completely dead, and cannot be recharged. → Replace with a new battery pack. (p. 13) • The battery is dead. → Use a charged battery pack. (p. 13, 14)
The power goes off although the battery remaining indicator indicates that the battery pack has enough power to operate.	→ Charge the battery pack fully again so that the indication on the battery remaining indicator is correct.
The cassette cannot be removed from the holder.	• The power source is disconnected. → Connect it firmly. (p. 13, 19) • The battery is dead. → Use a charged battery pack. (p. 13, 14)
The ▣ and ⏏ indicators flash and no functions except for cassette ejection work.	• Moisture condensation has occurred. → Remove the cassette and leave your camcorder for at least one hour to acclimatize. (p. 195)
C/I/ indicator does not appear when using a tape with cassette memory.	• The gold-plated connector of the tape is dirty or dusty. → Clean the gold-plated connector. (p. 173)
Remaining tape indicator is not displayed.	• The 📼 REMAIN is set to AUTO in the menu settings. → Set it to ON to always display the remaining tape indicator. (p. 116)

When operating using the "Memory Stick"

– DCR-TRV11E/TRV20E only

Symptom	Cause and/or Corrective Actions
The "Memory Stick" does not function.	• The POWER switch is not set to MEMORY. → Set it to MEMORY. (p. 138)
Recording does not function.	• The "Memory Stick" has already been recorded to its full capacity. → Erase unnecessary images and record again. (p. 166) • The "Memory Stick" is not inserted. → Insert a "Memory Stick". (p. 133) • The "Memory Stick" formatted incorrectly is inserted. → Format the "Memory Stick" or use another "Memory Stick. " (p. 119) • The write-protect tab on the "Memory Stick" is set to LOCK. → Set the tab to write. (p. 131)
The image cannot be deleted.	• The image is protected. → Cancel image protection. (p. 164) • The write-protect tab on the "Memory Stick" is set to LOCK. → Set the tab to write. (p. 131)
You cannot format the "Memory Stick".	• The write-protect tab on the "Memory Stick" is set to LOCK. → Set the tab to write. (p. 131)
Deleting all the images cannot be carried out.	• The write-protect tab on the "Memory Stick" is set to LOCK. → Set the tab to write. (p. 131)
You cannot protect the image.	• The write-protect tab on the "Memory Stick" is set to LOCK. → Set the tab to write. (p. 131) • The image to protect is not be played back. → Press MEMORY PLAY to play back the image. (p. 154)
You cannot write a print mark on the still image.	• The write-protect tab on the "Memory Stick" is set to LOCK. → Set the tab to write. (p. 131) • The image to write a print mark is not be played back. → Press MEMORY PLAY to play back the image. (p. 154)
The photo save function does not work.	• The write-protect tab on the "Memory Stick" is set to LOCK. → Set the tab to write. (p. 131) • The battery pack is dead. → Install a charged battery pack or use the AC power adaptor

(continued on the following page)

Others

Symptom	Cause and/or Corrective Actions
The title is not recorded.	• The tape has no cassette memory. → Use a tape with cassette memory. (p. 108, 171) • The cassette memory is full. → Erase another title. (p. 111) • The tape is set to prevent accidental erasure. → Slide the write-protect tab so that red portion is not visible. (p. 20) • Nothing is recorded in that position on the tape. → Superimpose the title to the recorded position. (p. 108)
The cassette label is not recorded.	• The tape has no cassette memory. → Use a tape with cassette memory. (p. 114, 171) • The cassette memory is full. → Erase some titles. (p. 115) • The tape is set to prevent accidental erasure. → Slide the write-protect tab so that red portion is not visible. (p. 20)
While editing using the i.LINK cable (DV connecting cable), recording picture cannot be monitored.	• Remove the i.LINK cable (DV connecting cable), and connect it again.
Digital programme editing does not function.	• The input selector on the VCR is not set correctly. → Check the connection and set the input selector on the VCR again. (p. 84) • The camcorder is connected to DV equipment of other than Sony. → Set it to IR. (p. 85) • Setting programme on a blank portion of the tape is attempted. → Set the PROGRAM again on a recorded portion. (p. 93) • The camcorder and the VCR are not synchronized. → Adjust the synchronicity. (p. 90)
The Remote Commander supplied with your camcorder does not work.	• COMMANDER is set to OFF in the menu settings. → Set it to ON. (p. 116) • Something is blocking the infrared rays. → Remove the obstacle. • The batteries are inserted in the battery holder with the + – polarities incorrectly matching the + – marks. → Insert the batteries with the correct polarity. (p. 213) • The batteries are dead. → Insert new ones. (p. 213)
The picture from a TV or VCR does not appear even when your camcorder is connected to output on the TV or VCR (DCR-TRV20E only.)	• Display is set to V-OUT/LCD in the menu settings. → Set it to LCD. (p. 116)
You cannot charge the battery pack.	• The POWER switch is not set to OFF (CHG). → Set it to OFF (CHG).

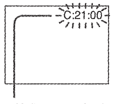
Symptom	Cause and/or Corrective Actions
The melody or beep sounds for 5 seconds.	• Moisture condensation has occurred. → Remove the cassette and leave your camcorder for at least 1 hour to acclimatize. (p. 195) • Some troubles has occurred in your camcorder. → Remove the cassette and insert it again, then operate your camcorder.
While charging the battery pack, no indicator appears or the indicator flashes in the display window.	• The AC power adaptor is disconnected. → Connect it firmly. (p. 19) • The battery pack is not properly installed. → Install it properly. • Something is wrong with the battery pack. → Contact your Sony dealer or local authorized Sony service facility.
No function works though the power is on.	• Disconnect the mains lead of the AC power adaptor or remove the battery, then reconnect it in about one minute. Turn the power on. If the functions still do not work, open the LCD panel and press the RESET button beside the SELFTIMER button using a sharp-pointed object. (If you press the RESET button, all the settings including the date and time return to the default.) (p. 207)
When you set the POWER switch to VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) or OFF (CHG), if you move your camcorder, you may hear a clatter sound from inside your camcorder.	• Your camcorder is not a malfunction.

English

Self-diagnosis display

Your camcorder has a self-diagnosis display function.
This function displays the current condition of your camcorder as a 5-digit code (a combination of a letter and figures) in the viewfinder, on the LCD screen or in the display window. If a 5-digit code is displayed, check the following code chart. The last two digits (indicated by □□) will differ depending on the state of your camcorder.

LCD screen (or Viewfinder)



Self-diagnosis display

- C:□□:□□
  You can service your camcorder yourself.
- E:□□:□□
  Contact your Sony dealer or local authorized Sony facility.

Five-digit display	Cause and/or Corrective Actions
C:04:□□	• You are using a battery pack that is not an "InfoLITHIUM" battery pack. → Use an "InfoLITHIUM" battery pack. (p. 14)
C:21:□□	• Moisture condensation has occurred. → Remove the cassette and leave your camcorder for at least one hour to acclimatize. (p. 195)
C:22:□□	• The video heads are dirty. → Clean the heads using the cleaning cassette (not supplied). (p. 196)
C:31:□□ C:32:□□	• A malfunction other than the above that you can service has occurred. → Remove the cassette and insert it again, then operate your camcorder. → Disconnect the mains lead of the AC power adaptor or remove the battery pack. After reconnecting the power source, operate your camcorder.
E:61:□□ E:62:□□	• A malfunction that you cannot service has occurred. → Contact your Sony dealer or local authorized Sony service facility and inform them of the 5-digit code. (example: E:61:10)

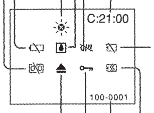
If you are unable to rectify the problem even if you try corrective actions a few times, contact your Sony dealer or local authorized Sony service facility.

English

Warning indicators and messages

If indicators and messages appear in the viewfinder, on the LCD screen or in the display window, check the following:
See the page in parentheses "( )" for more information.
The indicators and messages are displayed in yellow.

Warning indicators



The video heads are dirty
Slow flashing:
- You need to clean the heads using the Sony DVM-12CLD cleaning cassette (not supplied) (p. 196).

The battery is dead or nearly dead
Slow flashing:
- The battery is nearly dead.
- The battery is dead (p. 14).
  Depending on conditions, the ⌧ indicator may flash, even if there are five to 10 minutes remaining.

Warning indicator as to tape
Slow flashing:
- The tape is near the end.
- No tape is inserted (p. 20).*
- The write-protect tab on the cassette is out (red) (p. 20).*

Fast flashing:
- The tape has run out (p. 20, 39).*

You need to eject the cassette
Slow flashing:
- The write-protect tab on the cassette is out (red) (p. 20).*

Fast flashing:
- Moisture condensation has occurred (p. 195).*
- The tape has run out (p. 20, 36).*
- The self-diagnosis display function is activated (p. 182).*

The still image is protected (DCR-TRV11E/TRV20E only)
Slow flashing:
- The still image is protected (p. 164).*

Moisture condensation has occurred*
Fast flashing:
- Eject the cassette, turn off your camcorder, and leave it for about 1 hour with the cassette compartment open (p. 195).

Warning indicator as to cassette memory
Slow flashing:
- No tape with cassette memory is inserted (p. 171).*

Self-diagnosis display (p. 182).

Warning indicator as to "Memory Stick" (DCR-TRV11E/TRV20E only)
Slow flashing:
- No "Memory Stick" is inserted (p. 133).*

Fast flashing:
- The "Memory Stick" is not readable with your camcorder (p. 131).*

Warning indicator as to "Memory Stick" (DCR-TRV11E/TRV20E only)
Fast flashing:
- "Memory Stick" is not formatted correctly (p. 119).
- The "Memory Stick" data is corrupted.*
- Different size of "Memory Stick" is inserted.

Warning indicator as to file
Slow flashing:
- The file is corrupted.
- The file is unreadable.

* You hear the melody or beep sound.

Warning indicators and messages

Warning messages

• CLOCK SET	Reset the date and time (p. 129).
• FOR "InfoLITHIUM" BATTERY ONLY	Use an "InfoLITHIUM" battery pack (p. 14).
• CLEANING CASSETTE	The video heads are dirty (p. 196).
• FULL	The tape cassette memory is full.
• ⊖ 16BIT	AUDIO MODE is set to 16BIT (p. 116).* You cannot dub new sound.
• ⊖ REC MODE	REC MODE is set to LP (p. 116).* You cannot dub new sound.
• ⊖ TAPE	There is no recorded portion on the tape. You cannot dub new sound.
• ⊖ "i.LINK" CABLE	i.LINK cable is connected (p. 107).* You cannot dub new sound.
• ⊖ AV CABLE	A/V connecting cable is connected (p. 41).* You cannot dub new sound. (DCR-TRV6E/TRV11E only)
• FULL	The "Memory Stick" is full.* (DCR-TRV11E/TRV20E only)
• ⊶	The write-protect tab on the "Memory Stick" is set to LOCK (p. 131).* (DCR-TRV11E/TRV20E only)
• NO FILE	No still image is recorded on the "Memory Stick" (p. 155).* (DCR-TRV11E/TRV20E only)
• NO MEMORY STICK	No "Memory Stick" is inserted (p. 133). (DCR-TRV11E/TRV20E only)
• MEMORY STICK ERROR	The "Memory Stick" data is corrupted. (DCR-TRV11E/TRV20E only)
• FORMAT ERROR	The "Memory Stick" is not recognized (p. 132). Check the format. (DCR-TRV11E/TRV20E only)
• ⊶ DIRECTORY ERROR	There is more than two same directories.
• COPY INHIBIT	The tape contains copyright control signals for copyright protection of software (p. 172).* (DCR-TRV20E only)
• TAPE END	The tape has reached the end of the tape (p.40).*
• NO TAPE	Insert a cassette tape (p. 20).*

* You hear the melody or beep sound.

Using your camcorder abroad

Using your camcorder abroad

You can use your camcorder in any country or area with the AC power adaptor supplied with your camcorder within 100 V to 240 V AC, 50/60 Hz.

Your camcorder is a PAL system based camcorder. If you want to view the playback picture on a TV, it must be a PAL system based TV with AUDIO/VIDEO input jack.
The following shows TV colour systems used overseas.

PAL system
Australia, Austria, Belgium, China, Czech Republic, Denmark, Finland, Germany, Great Britain, Holland, Hong Kong, Italy, Kuwait, Malaysia, New Zealand, Norway, Portugal, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Thailand, etc.

PAL-M system
Brazil

PAL-N system
Argentina, Paraguay, Uruguay

NTSC system
Bahama Islands, Bolivia, Canada, Central America, Chile, Colombia, Ecuador, Jamaica, Japan, Korea, Mexico, Peru, Surinam, Taiwan, the Philippines, the U.S.A., Venezuela, etc.

SECAM system
Bulgaria, France, Guyana, Hungary, Iran, Iraq, Monaco, Poland, Russia, Ukraine, etc.

Simple setting of clock by time difference

You can easily set the clock to the local time by setting a time difference. Select WORLD TIME in the menu settings. See page 122 for more information.

Использование Вашей видеокамеры за границей

Использование Вашей видеокамеры за границей

Вы можете использовать Вашу видеокамеру в любой стране или области благодаря сетевому адаптеру переменного тока, прилагаемому к Вашей видеокамере, который можно использовать в диапазоне от 100 до 240 В переменного тока с частотой 50/60 Гц.

Ваша видеокамера работает в системе PAL. Если необходимо просмотреть воспроизводимое изображение на экране телевизора, то это должен быть телевизор, работающий в системе PAL с входными гнездами AUDIO/VIDEO.
Ниже приведены системы цветного телевидения, используемые за рубежом.

Система PAL
Австралия, Австрия, Бельгия, Китай, Чешская Республика, Дания, Финляндия, Германия, Великобритания, Голландия, Гонконг, Италия, Кувейт, Малайзия, Новая Зеландия, Норвегия, Португалия, Сингапур, Словакская Республика, Испания, Швеция, Швейцария, Таиланд и т.д.

Система PAL-M
Бразилия

Система PAL-N
Аргентина, Парагвай, Уругвай

Система NTSC
Багамские острова, Боливия, Канада, Центральная Америка, Чили, Колумбия, Эквадор, Ямайка, Япония, Корея, Мексика, Перу, Суринам, Тайвань, Филиппины, США, Венесуэла и т.д.

Система SECAM
Болгария, Франция, Гайана, Венгрия, Иран, Ирак, Монако, Польша, Россия, Украина и т.д.

Простая установка разницы во времени на часах

Вы можете легко установить часы на местное время путем установки разницы во времени. Выберите команду WORLD TIME в установках меню. Подробные сведения приведены на стр. 128.

Maintenance information and precautions

Moisture condensation

If your camcorder is brought directly from a cold place to a warm place, moisture may condense inside your camcorder, on the surface of the tape, or on the lens. In this condition, the tape may stick to the head drum and be damaged or your camcorder may not operate correctly. If there is moisture inside your camcorder, the beep sounds and the ▣ indicator flashes. When the ⏏ indicator flashes at the same time, the cassette is inserted in your camcorder. If moisture condenses on the lens, the indicator will not appear.

If moisture condensation occurred

None of the functions except cassette ejection will work. Eject the cassette, turn off your camcorder, and leave it for about one hour with the cassette compartment open. Your camcorder can be used again if the ▣ indicator does not appear when the power is turned on again.

Note on moisture condensation
Moisture may condense when you bring your camcorder from a cold place into a warm place (or vice versa) or when you use your camcorder in a hot place as follows:
- You bring your camcorder from a ski slope into a place warmed up by a heating device
- You bring your camcorder from an air-conditioned car or room into a hot place outside
- You use your camcorder after a squall or a shower
- You use your camcorder in a high temperature and humidity place

How to prevent moisture condensation
When you bring your camcorder from a cold place into a warm place, put your camcorder in a plastic bag and tightly seal it. Remove the bag when the air temperature inside the plastic bag has reached the surrounding temperature (after about one hour).

Информация по уходу за аппаратом и меры предосторожности

Конденсация влаги

Если видеокамера принесена из холодного места в теплое помещение, то внутри видеокамеры, на поверхности ленты или на объективе может произойти конденсация влаги. В таком состоянии лента может прилипнуть к барабану головки и будет повреждена, или же видеокамера не сможет работать надлежащим образом. Если внутри видеокамеры произошла конденсация влаги, то прозвучит зуммерный сигнал, а на экране ЖКД будет мигать индикатор ▣. Если в то же самое время будет мигать индикатор ⏏, это значит, что в видеокамеру вставлена кассета. Если влага сконденсировалась на объективе, индикатор появляться не будет.

Если произошла конденсация влаги

Ни одна из функций, кроме извлечения кассеты, не будет работать. Извлеките кассету, выключите видеокамеру и оставьте ее примерно на один час с открытым отсеком для кассеты. Видеокамеру снова можно использовать, если индикатор ▣ не появляется при повторном включении питания.

Примечание по конденсации влаги
Влага может образоваться, если перенести видеокамеру из холодного места в теплое (или наоборот) или при использовании видеокамеры в жарком месте в следующих случаях:
- Вы принесли видеокамеру с лыжного склона в помещение, где работает обогреватель
- Вы принесли видеокамеру из автомобиля или из комнаты с воздушным кондиционированием в жаркое место на улице
- Вы используете видеокамеру после грозы или дождя
- Вы используете видеокамеру в очень жарком и влажном месте

Как предотвратить конденсацию влаги
Если видеокамера принесена из холодного места в теплое, положите видеокамеру в полиэтиленовый пакет и плотно заклейте его. Выньте видеокамеру из полиэтиленового пакета, когда температура воздуха внутри пакета достигнет температуры окружающего воздуха (приблизительно через один час).

Maintenance information and precautions

Maintenance information

Cleaning the video head

To ensure normal recording and clear pictures, clean the video heads. The video head may be dirty when:
- mosaic-pattern noise appears on the playback picture.
- playback pictures do not move.
- playback pictures do not appear.
- the ⊗ indicator and "CLEANING CASSETTE" message appear one after another or the ⊗ indicator flashes on the LCD screen or in the viewfinder.

If the above problem, **[a]** or **[b]** occurs, clean the video heads for 10 seconds with the Sony DVM-12CLD cleaning cassette (not supplied). Check the picture and if the above problem persists, repeat cleaning.

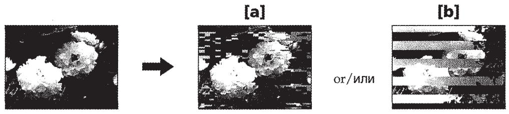
Информация по уходу за аппаратом и меры предосторожности

Информация по уходу за аппаратом

Чистка видеоголовок

Для обеспечения нормальной записи и четкого изображения следует периодически чистить видеоголовки. Видеоголовки, возможно, загрязнены, если:
- на воспроизводимом изображении появляются помехи типа мозаики.
- воспроизводимое изображение не двигается.
- воспроизводимое изображение не появляется на экране.
- на экране ЖКД или в видоискателе попеременно появляются индикатор ⊗ и сообщение "CLEANING CASSETTE", или мигает индикатор ⊗

Если возникнут помехи типа **[a]** или **[b]** почистите видеоголовки в течение 10 секунд с помощью чистящей кассеты Sony DVM-12CLD (не прилагается). Проверьте изображение и, если описанные выше проблемы не устранены, повторите чистку.



Cleaning the LCD screen

If fingerprints or dust make the LCD screen dirty, we recommend using a LCD Cleaning Kit (not supplied) to clean the LCD screen.

Charging the vanadium-lithium battery in your camcorder

Your camcorder is supplied with a vanadium-lithium battery installed so as to retain the date and time, etc., regardless of the setting of the POWER switch. The vanadium-lithium battery is always charged as long as you are using your camcorder. The battery, however, will get discharged gradually if you do not use your camcorder. It will be completely discharged in about four months if you do not use your camcorder at all. Even if the vanadium-lithium battery is not charged, it will not affect the camcorder operation. To retain the date and time, etc., charge the battery if the battery is discharged.

Charging the vanadium-lithium battery:
- Connect your camcorder to mains using the AC power adaptor supplied with your camcorder, and leave your camcorder with the POWER switch turned off for more than 24 hours.
- Or install the fully charged battery pack in your camcorder, and leave your camcorder with the POWER switch turned off for more than 24 hours.

Чистка экрана ЖКД

Если на экране ЖКД появятся отпечатки или пыль, рекомендуется воспользоваться очистительным набором для ЖКД (не прилагается) для чистки ЖКД.

Зарядка ванадиево-литиевой батарейки в Вашей видеокамере

К Вашей видеокамере прилагается ванадиево-литиевая батарейка, которая сохраняет в памяти дату и время и т.п. независимо от установки переключателя POWER. Ванадиево-литиевая батарейка заряжается всегда, когда Вы используете свою видеокамеру. Однако батарейка будет постепенно разряжаться, если Вы не используете видеокамеру. Если Вы совсем не будете пользоваться видеокамерой, батарейка практически полностью разрядится примерно через четыре месяца. Даже если ванадиево-литиевая батарейка не заряжена, это не повлияет на работу видеокамеры. Для сохранения в памяти даты и времени следует зарядить батарейку, если она разряжена.

Зарядка ванадиево-литиевой батарейки:
- Подсоедините видеокамеру к сети с помощью сетевого адаптера переменного тока, прилагаемого к Вашей видеокамере, и оставьте видеокамеру с выключенным питанием более, чем на 24 часа.
- Или же установите полностью заряженный батарейный блок в Вашу видеокамеру и оставьте ее с выключенным питанием более, чем на 24 часа.

Maintenance information and precautions

Precautions

Camcorder operation

- Operate your camcorder on 7.2 V (battery pack) or 8.4 V (AC power adaptor).
- For DC or AC operation, use the accessories recommended in this operating instructions.
- If any solid object or liquid get inside the casing, unplug your camcorder and have it checked by a Sony dealer before operating it any further.
- Avoid rough handling or mechanical shock. Be particularly careful of the lens.
- Keep the POWER switch set to OFF (CHG) when you are not using your camcorder.
- Do not wrap your camcorder with a towel, for example, and operate it. Doing so might cause heat to build up inside.
- Keep your camcorder away from strong magnetic fields or mechanical vibration.
- Do not touch the LCD screen with your fingers or a sharp-pointed object.
- If your camcorder is used in a cold place, a residual image may appear on the LCD screen. This is not a malfunction.
- While using your camcorder, the back of the LCD screen may heat up. This is not a malfunction.

On handling tapes

- Do not insert anything into the small holes on the rear of the cassette. These holes are used to sense the type and thickness of the tape and if the recording tab is in or out.
- Do not open the tape protect cover or touch the tape.
- Avoid touching or damaging the terminals. To remove dust, clean the terminals with a soft cloth.

Camcorder care

- Remove the tape, and periodically turn on the power, operate the CAMERA and VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E) sections and play back a tape for about three minutes when your camcorder is not to be used for a long time.
- Clean the lens with a soft brush to remove dust. If there are fingerprints on the lens, remove them with a soft cloth.
- Clean the camcorder body with a dry soft cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent which may damage the finish.
- Do not let sand get into your camcorder. When you use your camcorder on a sandy beach or in a dusty place, protect it from the sand or dust. Sand or dust may cause your camcorder to malfunction, and sometimes this malfunction cannot be repaired.

Информация по уходу за аппаратом и меры предосторожности

Меры предосторожности

Эксплуатация видеокамеры

- Эксплуатируйте видеокамеру от 7,2 В (батарейный блок) или 8,4 В (сетевой адаптер переменного тока).
- Что касается эксплуатации видеокамеры от постоянного и переменного тока, используйте принадлежности, рекомендуемые в данной инструкции по эксплуатации.
- Если внутрь корпуса попал какой-нибудь твердый предмет или жидкость, выключите видеокамеру и перед дальнейшей ее эксплуатацией проверьте ее у дилера Sony.
- Не допускайте грубого обращения с видеокамерой или механических ударов. Будьте особенно осторожны с объективом.
- Когда видеокамера не используется, установите переключатель POWER в положение OFF (CHG).
- Не заворачивайте видеокамеру, например, в полотенце, и не эксплуатируйте ее в таком состоянии. В противном случае может произойти повышение температуры внутри видеокамеры.
- Держите Вашу видеокамеру подальше от сильных магнитных полей и не подвергайте ее механической вибрации.
- Не прикасайтесь к экрану ЖКД пальцами или острыми предметами.
- При эксплуатации Вашей видеокамеры в холодном месте, на экране ЖКД может появляться остаточное изображение. Однако это не является неисправностью.
- При эксплуатации Вашей видеокамеры, задняя сторона экрана ЖКД может нагреваться. Однако это не является неисправностью.

Относительно обращения с лентами

- Не вставляйте никаких предметов в маленькие отверстия на задней стороне кассеты. Эти отверстия используются для определения типа и толщины ленты, а также для определения наличия или отсутствия лепестка защиты от записи на ленте.
- Не открывайте предохранительную крышку ленты и не прикасайтесь к ленте.
- Не прикасайтесь к полюсам и не допускайте их повреждения. Для удаления пыли чистите полюса с помощью мягкой ткани.

Уход за видеокамерой

- Когда видеокамера в течение длительного времени не используется, вынимайте кассету и периодически включайте питание, дайте камере поработать в режиме CAMERA и VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E), включая воспроизведение кассеты примерно на три минуты.
- Чистите объектив с помощью мягкой кисточки для удаления пыли. Если имеются отпечатки пальцев на объективе, удалите их с помощью мягкой ткани.
- Чистите корпус видеокамеры с помощью мягкой сухой ткани или мягкой ткани, слегка смоченной слабым раствором моющего средства. Не используйте никакие растворители, которые могут повредить покрытие.
- Не допускайте попадания песка в видеокамеру. Если Вы используете видеокамеру на песчаном пляже или в каком-либо пыльном месте, предохраняйте аппарат от песка или пыли. Песок или пыль могут привести к неисправности аппарата, которая иногда может быть неустранимой.

Maintenance information and precautions

AC power adaptor

- Unplug the unit from the mains when you are not using the unit for a long time. To disconnect the mains lead, pull it out by the plug. Never pull the mains lead itself.
- Do not operate the unit with a damaged cord or if the unit has been dropped or damaged.
- Do not bend the mains lead forcibly, or place a heavy object on it. This will damage the cord and may cause fire or electrical shock.
- Prevent metallic objects from coming into contact with the metal parts of the connecting section. If this happens, a short may occur and the unit may be damaged.
- Always keep metal contacts clean.
- Do not disassemble the unit.
- Do not apply mechanical shock or drop the unit.
- While the unit is in use, particularly during charging, keep it away from AM receivers and video equipment. AM receivers and video equipment disturb AM reception and video operation.
- The unit becomes warm during use. This is not a malfunction.
- Do not place the unit in locations that are:
  - – Extremely hot or cold
  - – Dusty or dirty
  - – Very humid
  - – Vibrating

Battery pack

- Use only the specified charger or video equipment with the charging function.
- To prevent accident from a short circuit, do not allow metal objects to come into contact with the battery terminals.
- Keep the battery pack away from fire.
- Never expose the battery pack to temperatures above 60°C (140°F), such as in a car parked in the sun or under direct sunlight.
- Keep the battery pack dry.
- Do not expose the battery pack to any mechanical shock.
- Do not disassemble nor modify the battery pack.
- Attach the battery pack to the video equipment securely.
- The battery pack is not resistant to water. Do not wet the battery pack.
- Unless you use the battery pack for a long period, store the battery pack after you charge it fully and use it completely once a year.
- Store the battery pack in a cool, dry place.

Информация по уходу за аппаратом и меры предосторожности

Сетевой адаптер переменного тока

- Отсоедините аппарат от электрической сети, если он не используется длительное время. Для отсоединения сетевого шнура потяните его за разъем. Никогда не тяните за сам шнур.
- Не эксплуатируйте аппарат с поврежденным шнуром, или если аппарат упал или был поврежден.
- Сильно не перегибайте сетевой провод и не ставьте на него тяжелые предметы. Это повредит провод и может привести к пожару или поражению электрическим током.
- Никакие металлические предметы не должны соприкасаться с металлическими контактами соединительной пластины. Если это случится, то может произойти короткое замыкание, и аппарат может быть поврежден.
- Всегда поддерживайте металлические контакты в чистоте.
- Не разбирайте аппарат.
- Не подвергайте аппарат механической вибрации и не роняйте его.
- При использовании аппарата, особенно во время зарядки, держите его подальше от приемников АМ-радиовещания и видеоаппаратуры. Приемники АМ-радиовещания и видеоаппаратура нарушают АМ-радиоприем и работу видеоаппаратуры.
- В процессе эксплуатации аппарат нагревается. Однако это не является неисправностью.
- Не размещайте аппарат в местах:
  - – Очень жарких или холодных
  - – Пыльных или грязных
  - – Очень влажных
  - – Подверженных вибрации

Батарейный блок

- Используйте только рекомендуемое зарядное устройство или видеоаппаратуру с функцией зарядки.
- Для предотвращения несчастного случая из-за короткого замыкания не допускайте соприкосновения металлических предметов с полюсами батарейного блока.
- Не держите батарейный блок вблизи огня.
- Не подвергайте батарейный блок воздействию температур свыше 60°C (140°F), не оставляйте его, например, в автомобиле, припаркованном в солнечном месте или под прямыми солнечными лучами.
- Поддерживайте батарейный блок в сухом виде.
- Не подвергайте батарейный блок воздействию каких-либо механических ударов.
- Не разбирайте и не видоизменяйте батарейный блок.
- Прикрепляйте батарейный блок к видеоаппаратуре плотно.
- Батарейный блок не является водонепроницаемым. Не подвергайте батарейный блок воздействию влаги.
- Если Вы длительное время не используете батарейный блок, полностью зарядите его и храните отдельно. Батарейный блок раз в год необходимо полностью разряжать.
- Храните батарейный блок в сухом прохладном месте.

Maintenance information and precautions

Notes on dry batteries

To avoid possible damage from battery leakage or corrosion, observe the following:

- Be sure to insert the batteries with the + – polarities matched to the + – marks.
- Dry batteries are not rechargeable.
- Do not use a combination of new and old batteries.
- Do not use different types of batteries.
- Current flows from batteries when you are not using them for a long time.
- Do not use leaking batteries.

If batteries are leaking

- Wipe off the liquid in the battery compartment carefully before replacing the batteries.
- If you touch the liquid, wash it off with water.
- If the liquid get into your eyes, wash your eyes with a lot of water and then consult a doctor.

If any problem occurs, unplug your camcorder and contact your nearest Sony dealer.

Информация по уходу за аппаратом и меры предосторожности

Примечания к сухим батарейкам

Во избежание возможного повреждения видеокамеры вследствие утечки внутреннего вещества батареек или коррозии соблюдайте следующее:

- При установке батареек соблюдайте правильную полярность + – в соответствии с метками + –.
- Сухие батарейки нельзя перезаряжать.
- Не используйте новые батарейки вместе со старыми.
- Не используйте батарейки разного типа.
- Если батарейки длительное время не используются, они постепенно разряжаются.
- Не используйте батарейки, которые потекли.

Если произошла утечка внутреннего вещества батареек

- Перед тем, как заменить батарейки, тщательно протрите остатки жидкости в отсеке для батареек.
- В случае попадания жидкости на кожу, смойте ее водой.
- В случае попадания жидкости в глаза, промойте глаза большим количеством воды, после чего обратитесь к врачу.

В случае возникновения каких-либо проблем, отключите видеокамеру от источника питания и обратитесь в ближайший сервисный центр Sony.

— Quick Reference —

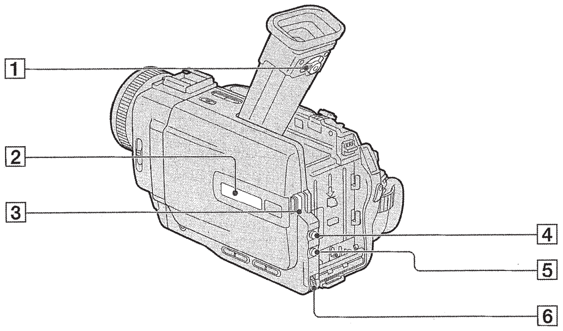
Identifying the parts and controls

Camcorder

— Краткий справочник —

Обозначение частей и регуляторов

Видеокамера



1 **Viewfinder lens adjustment lever** (p. 25)

2 **Display window** (p. 214)

3 **OPEN button** (p. 21)

4 **PROGRAM AE button** (p. 61)

5 **EXPOSURE button** (p. 64)

6 **SEL/PUSH EXEC dial** (p. 49, 116)

1 **Рычаг регулировки объектива видоискателя** (стр. 25)

2 **Окошко дисплея** (стр. 214)

3 **Кнопка OPEN** (стр. 21)

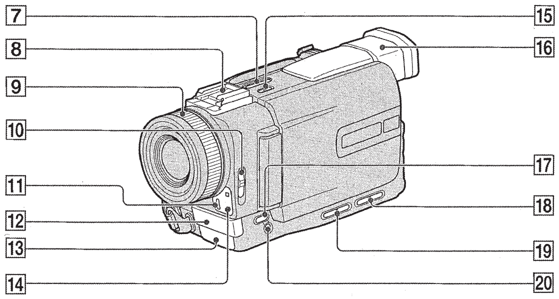
4 **Кнопка PROGRAM AE** (стр. 61)

5 **Кнопка EXPOSURE** (стр. 64)

6 **Диск SEL/PUSH EXEC** (стр. 49, 116)

This mark indicates that this product is a genuine accessory for Sony video products.
When purchasing Sony video products, Sony recommends that you purchase accessories with this "GENUINE VIDEO ACCESSORIES" mark.

Данная метка означает, что это изделие является принадлежностью для видеоаппаратуры Sony. При покупке видеоаппаратуры Sony рекомендуется приобретать для нее принадлежности Sony с меткой "GENUINE VIDEO ACCESSORIES".



7 **EDITSEARCH buttons** (p. 34)

8 **Intelligent accessory shoe** (p. 104, 211)

9 **Focus ring** (p. 65)

10 **FOCUS switch** (p. 65)

11 **Camera recording lamp** (p. 21)

12 **Microphone**

13 **Infrared rays emitter** (p. 31, 43, 87)

14 **Remote sensor**

15 **SUPER LASER LINK button** (p. 43)

16 **Viewfinder** (p. 25)

17 **FADER button** (p. 53)

18 **VOLUME buttons** (p. 36)

19 **LCD BRIGHT buttons** (p. 24)

20 **BACK LIGHT button** (p. 30)

7 **Кнопки EDITSEARCH** (стр. 34)

8 **Держатель для вспомогательных принадлежностей** (стр. 104, 211)

9 **Кольцо фокусировки** (стр. 65)

10 **Переключатель FOCUS** (стр. 65)

11 **Лампочка записи видеокамерой** (стр. 21)

12 **Микрофон**

13 **Излучатель инфракрасных лучей** (стр. 31, 43, 87)

14 **Датчик дистанционного управления**

15 **Кнопка SUPER LASER LINK** (стр. 43)

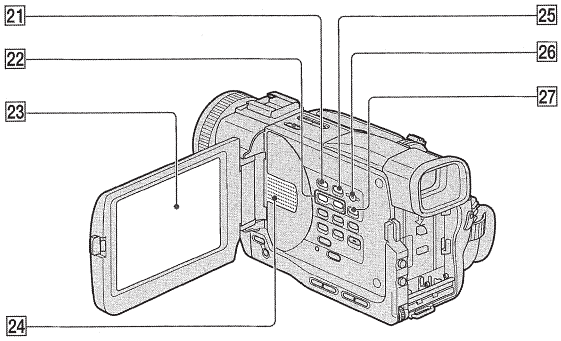
16 **Видоискатель** (стр. 25)

17 **Кнопка FADER** (стр. 53)

18 **Кнопки VOLUME** (стр. 36)

19 **Кнопки LCD BRIGHT** (стр. 24)

20 **Кнопка BACK LIGHT** (стр. 30)



21 **MEMORY PLAY button** (DCR-TRV11E/TRV20E only) (p. 154)

22 **MEMORY +/– buttons** (DCR-TRV11E/TRV20E only) (p. 146, 154)

23 **LCD screen** (p. 23)

24 **Speaker**

25 **MEMORY INDEX button** (DCR-TRV11E/TRV20E only) (p. 156)

26 **MEMORY DELETE button** (DCR-TRV11E/TRV20E only) (p. 166)

27 **MEMORY MIX button** (DCR-TRV11E/TRV20E only) (p.144)

21 **Кнопка MEMORY PLAY** (только для модели DCR-TRV11E/TRV20E) (стр. 154)

22 **Кнопки MEMORY +/–** (только для модели DCR-TRV11E/TRV20E) (стр. 146, 154)

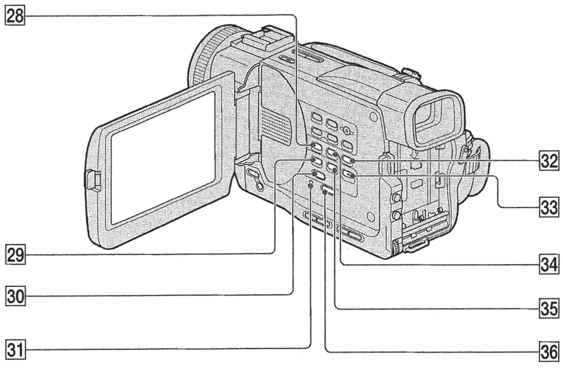
23 **Экран ЖКД** (стр. 23)

24 **Динамик**

25 **Кнопка MEMORY INDEX** (только для модели DCR-TRV11E/TRV20E) (стр. 156)

26 **Кнопка MEMORY DELETE** (только для модели DCR-TRV11E/TRV20E) (стр. 166)

27 **Кнопка MEMORY MIX** (только для модели DCR-TRV11E/TRV20E) (стр. 144)



28 **DISPLAY button** (p. 37)

29 **DIGITAL EFFECT button** (p. 58, 68)

30 **PB ZOOM button** (p. 70, 160)

31 **RESET button** (p. 180)

32 **END SEARCH button** (p. 34)

33 **MENU button** (p. 49, 116)

34 **DATA CODE button** (p. 37)

35 **TITLE button** (p. 108, 112)

36 ⏲ **SELFTIMER button** (p. 33, 47, 143)

28 **Кнопка DISPLAY** (стр. 37)

29 **Кнопка DIGITAL EFFECT** (стр. 58, 68)

30 **Кнопка PB ZOOM** (стр. 70, 160)

31 **Кнопка RESET** (стр. 190)

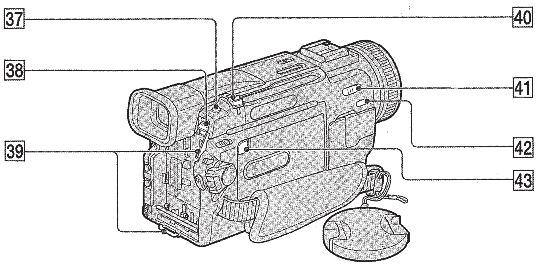
32 **Кнопка END SEARCH** (стр. 34)

33 **Кнопка MENU** (стр. 49, 116)

34 **Кнопка DATA CODE** (стр. 37)

35 **Кнопка TITLE** (стр. 108, 112)

36 ⏲ **Кнопка SELFTIMER** (стр. 33, 47, 143)



37 **PHOTO button** (p. 45, 138)

38 **BATT release button** (p. 13)

39 **Hooks for shoulder strap**

40 **Power zoom lever** (p. 27)

41 **NIGHTSHOT switch** (p. 31)

42 **SUPER NIGHTSHOT button** (p. 31)

43 **MEMORY RELEASE button** (DCR-TRV11E/TRV20E only) (p. 133)

Attaching the shoulder strap

Attach the shoulder strap supplied with your camcorder to the hooks for the shoulder strap.

37 **Кнопка PHOTO** (стр. 45, 138)

38 **Кнопка для снятия батарей** (стр. 13)

39 **Крючки для плечевого ремня**

40 **Рычаг привода трансфокатора** (стр. 27)

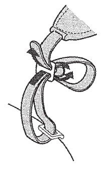
41 **Переключатель NIGHTSHOT** (стр. 31)

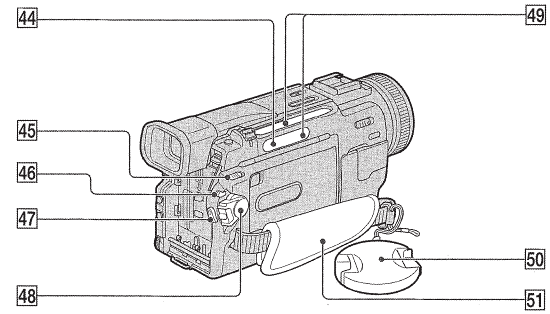
42 **Кнопка SUPER NIGHTSHOT** (стр. 31)

43 **Кнопка MEMORY RELEASE** (только для модели DCR-TRV11E/TRV20E) (стр. 133)

Прикрепление плечевого ремня

Прикрепите плечевой ремень, прилагаемый к Вашей видеокамере, к крючкам для плечевого ремня.





[44] **Access lamp** (DCR-TRV11E/TRV20E only) (p. 133)

[45] **MEMORY OPEN button** (DCR-TRV11E/TRV20E only) (p. 133)

[46] **LOCK switch** (DCR-TRV11E/TRV20E only) (p. 21)

[47] **START/STOP button** (p. 21)

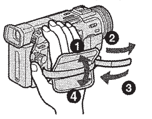
[48] **POWER switch** (p. 21)

[49] **Video control buttons** (p. 36)
■ STOP (stop)
◀◀ REW (rewind)
▶ PLAY (playback)
▶▶ FF (fastforward)
❚❚ PAUSE (pause)
● REC (record) (DCR-TRV20E only)
The control buttons light up when you set the POWER switch to VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).

[50] **Lens Cap** (p. 21)

[51] **Grip strap**

Fastening the grip strap



Fasten the grip strap firmly.

[44] **Лампочка обращения** (только для модели DCR-TRV11E/TRV20E) (стр. 133)

[45] **Кнопка MEMORY OPEN** (только для модели DCR-TRV11E/TRV20E) (стр. 133)

[46] **Переключатель LOCK** (только для модели DCR-TRV11E/TRV20E) (стр. 21)

[47] **Кнопка START/STOP** (стр. 21)

[48] **Переключатель POWER** (стр. 21)

[49] **Кнопки видеоконтроля** (стр. 36)
■ STOP (остановка)
◀◀ REW (ускоренная перемотка назад)
▶ PLAY (воспроизведение)
▶▶ FF (ускоренная перемотка вперед)
❚❚ PAUSE (пауза)
● REC (запись) (только для модели DCR-TRV20E)
Кнопки управления подсвечиваются, если переключатель POWER установлен в положение VCR (DCR-TRV20E)/PLAYER (DCR-TRV6E/TRV11E).

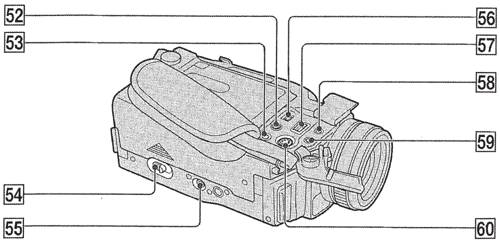
[50] **Крышка объектива** (стр. 21)

[51] **Ремень для захвата**

Прикрепите ремень для захвата

Надежно прикрепите ремень для захвата.

Quick Reference Краткий справочник



[52] **AUDIO/VIDEO jack** (p. 41, 80, 97)

[53] 🎧 **(headphones) jack**
When you use headphones, the speaker on your camcorder is silent.

[54] **OPEN/EJECT lever** (p. 20)

[55] **Tripod receptacle**
Make sure that the length of the tripod screw is less than 6.5 mm (9/32 inch). Otherwise, you cannot attach the tripod securely and the screw may damage your camcorder.

[56] **i DV IN/OUT jack** (DCR-TRV20E only) (p. 82, 96, 99)
i DV OUT jack (DCR-TRV6E/11E only)

This "i.LINK" mark is a trademark of Sony Corporation and indicates that this product is in agreement with IEEE 1394-1995 specifications and their revisions.

The i DV IN/OUT jack is i.LINK compatible.

[57] **DC IN jack** (p. 14)

[58] **DIGITAL I/O/Ⓛ (LANC) control jack** (DCR-TRV11E/TRV20E only) (p. 157)
Ⓛ (LANC) control jack (DCR-TRV6E only)
LANC stands for Local Application Control Bus System. The Ⓛ control jack is used for controlling the tape transport of video equipment and other peripherals connected to the video equipment. This jack has the same function as the jack indicated as CONTROL L or REMOTE.

[59] **MIC jack (PLUG IN POWER)**
Connect an external microphone (not supplied). This jack also accepts a "plug-in-power" microphone.

[60] **S VIDEO jack** (p. 41, 80, 97)

[52] **Гнездо AUDIO/VIDEO** (стр. 41, 80, 97)

[53] 🎧 **Гнездо** (головные телефоны)
Если Вы используете головные телефоны, динамик на Вашей видеокамере отключается.

[54] **Рычаг OPEN/EJECT** (стр. 20)

[55] **Гнездо для штатива**
Убедитесь, что длина винта штатива менее 6,5 мм. В противном случае Вы не сможете надежно прикрепить штатив, а винт может повредить Вашу видеокамеру.

[56] **i Гнездо DV IN/OUT** (только для модели DCR-TRV20E) (стр. 82, 96, 99)
i Гнездо DV OUT (только для модели DCR-TRV6E/11E)
Знак "i.LINK" является торговой маркой корпорации Sony и указывает на то, что продукция соответствует техническим условиям стандартов IEEE 1394-1995 и их дополнениям.

Гнездо i DV IN/OUT поддерживает передачу сигналов по стандарту i.LINK.

[57] **Гнездо DC IN** (стр. 14)

[58] **Гнездо управления DIGITAL I/O/Ⓛ (LANC)** (только для модели DCR-TRV11E/TRV20E) (стр. 157)
Гнездо управления Ⓛ LANC (только для модели DCR-TRV6E)
LANC обозначает систему канала местного управления. Гнездо управления Ⓛ используется для контроля за перемещением ленты видеоаппаратуры и периферийных устройств, которые подключены к ней. Данное гнездо имеет такую же функцию, как и разъемы, обозначенные CONTROL L или REMOTE.

[59] **Гнездо MIC** (PLUG IN POWER)
Для подсоединения внешнего микрофона (не прилагается). Это гнездо также позволяет подключить микрофон "с выключателем питания".

[60] **S Гнездо VIDEO** (стр. 41, 80, 97)

Note on the Carl Zeiss lens
Your camcorder is equipped with a Carl Zeiss lens which can reproduce a fine image.
The lens for your camcorder was developed jointly by Carl Zeiss, in Germany, and Sony Corporation. It adopts the MTF* measurement system for video camera and offers a quality as the Carl Zeiss lens.

* MTF is an abbreviation of Modulation Transfer Function/Factor.
The value number indicates the amount of light of a subject penetrating into the lens.

Intelligent Accessory Shoe

Notes on the intelligent accessory shoe

- The intelligent accessory shoe supplies power to optional accessories such as a video light or microphone.
- The intelligent accessory shoe is linked to the POWER switch, allowing you to turn the power supplied by the shoe on and off. Refer to the operating instructions of the accessory for further information.
- The intelligent accessory shoe has a safety device for fixing the installed accessory securely. To connect an accessory, press down and push it to the end, and then tighten the screw.
- To remove an accessory, loosen the screw, and then press down and pull out the accessory.

Примечание по объективу Карл Цейс
Ваша видеокамера оснащена объективом фирмы Карл Цейс, который позволяет получать высококачественные изображения.
Объектив для Вашей видеокамеры был разработан совместно компанией Карл Цейс (Германия) и корпорацией Sony. В его основе лежит система измерения MTF* для видеокамер, и он обладает таким же высоким качеством, как и все объективы компании Карл Цейс.

* MTF - это сокращение от функция/фактор передачи модуляции.
Значение указывает количество света от объекта, проникающего через объектив.

Intelligent Accessory Shoe

Примечания по держателю для вспомогательных принадлежностей

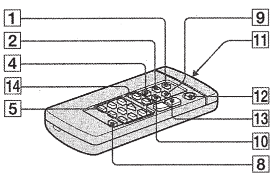
- Держатель для вспомогательных принадлежностей подает питание на вспомогательные принадлежности, такие как видеоподсветка или микрофон.
- Держатель для вспомогательных принадлежностей соединен с переключателем POWER, что позволяет включать и выключать подаваемое на держатель питание. Подробные сведения приводятся в инструкции по эксплуатации вспомогательных принадлежностей.
- В держателе для вспомогательных принадлежностей имеется предохранительное устройство для надежной фиксации установленной принадлежности. Для подсоединения принадлежности нажмите ее вниз и нажмите до упора, а затем затяните винт.
- Для снятия принадлежности ослабьте винт, а затем нажмите принадлежность вниз и потяните ее.

Quick Reference Краткий справочник

Remote Commander

The buttons that have the same name on the Remote Commander as on your camcorder function identically to the buttons on your camcorder.

RMT-809



[1] **PHOTO button** (p. 45, 138)

[2] **DISPLAY button** (p. 37)

[3] **Memory control buttons**
PLAY/INDEX/+/- button (p. 146, 154)

[4] **SEARCH MODE button** (p. 73, 75, 77)

[5] **Video control buttons** (p. 36)

[6] **REC button** (RMT-812 only) (p. 98, 100, 103)

[7] **MARK button** (DCR-TRV11E/TRV20E only) (p. 93, 98, 100, 103)

[8] **AUDIO DUB button** (p. 106)

[9] **ZERO SET MEMORY button** (p. 72)

[10] **DATA CODE button** (p. 37)

[11] **Transmitter**
Point toward the remote sensor to control your camcorder after turning on your camcorder.

[12] **START/STOP button** (p. 21)

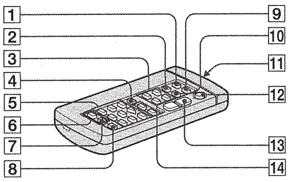
[13] **Power zoom button** (p. 27)

[14] **⏮/⏭ buttons** (p. 73, 75, 77)

Пульт дистанционного управления

Кнопки пульта дистанционного управления, которые имеют одинаковые наименования с кнопками на видеокамере, функционируют идентично.

RMT-811/RMT-812



[1] **Кнопка PHOTO** (стр. 45, 138)

[2] **Кнопка DISPLAY** (стр. 37)

[3] **Кнопки управления памятью**
Кнопка PLAY/INDEX/+/- (стр. 146, 154)

[4] **Кнопка SEARCH MODE** (стр. 73, 75, 77)

[5] **Кнопки видеоконтроля** (стр. 36)

[6] **Кнопка REC**
(только для модели RMT-812) (стр. 98, 100, 103)

[7] **Кнопка MARK**
(только для модели DCR-TRV11E/TRV20E) (стр. 93, 98, 100, 103)

[8] **Кнопка AUDIO DUB** (стр. 106)

[9] **Кнопка ZERO SET MEMORY** (стр. 72)

[10] **Кнопка DATA CODE** (стр. 37)

[11] **Передатчик**
Для управления видеокамерой направьте пульт на датчик после ее включения.

[12] **Кнопка START/STOP** (стр. 21)

[13] **Кнопка привода трансфокатора** (стр. 27)

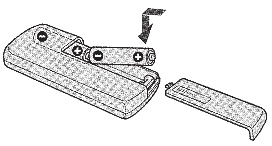
[14] **⏮/⏭ кнопки** (стр. 73, 75, 77)

To prepare the Remote Commander

Insert 2 R6 (Size AA) batteries by matching the + and – polarities on the batteries to the + – marks inside the battery compartment.

Для подготовки пульта дистанционного управления

Вставьте 2 батарейки R6 (размера AA), соблюдая полярность + и – с символами + – внутри отсека для батареек.



Notes on the Remote Commander

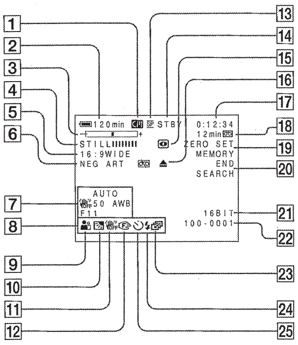
- Point the remote sensor away from strong light sources such as direct sunlight or overhead lighting. Otherwise, the Remote Commander may not function properly.
- Your camcorder works in the commander mode VTR 2. Commander modes 1, 2 and 3 are used to distinguish your camcorder from other Sony VCRs to avoid remote control misoperation. If you use another Sony VCR in the Commander mode VTR 2, we recommend changing the commander mode or covering the sensor of the VCR with black paper.

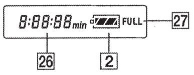
Примечания по пульту дистанционного управления

- Держите дистанционный датчик на расстоянии от сильных источников света, например, прямых солнечных лучей или лампы проектора. В противном случае дистанционное управление может не действовать.
- Данная видеокамера работает в режиме пульта дистанционного управления VTR 2. Режимы пульта дистанционного управления 1, 2 и 3 используются для отличия данной видеокамеры от других видеомагнитофонов фирмы Sony во избежание неправильной работы. Если Вы используете другой видеомагнитофон фирмы Sony, работающий в режиме VTR 2, мы рекомендуем Вам изменить режим пульта дистанционного управления или закрыть дистанционный датчик видеомагнитофона черной бумагой.

Operation indicators

Рабочие индикаторы





1 **Cassette memory indicator** (p. 29, 171)

2 **Remaining battery time indicator** (p. 29)

3 **Zoom indicator** (p. 27) **/Exposure indicator** (p. 64) **/Data file name indicator** (DCR-TRV11E/TRV20E only) (p. 131)

4 **Digital effect indicator** (p. 58) **/MEMORY MIX indicator** (DCR-TRV11E/TRV20E only) (p. 144)**/FADER indicator** (p. 53)

5 **16:9WIDE indicator** (p. 51)

6 **Picture effect indicator** (p. 56)

7 **Data code indicator** (p. 37)

8 **LCD bright indicator** (p. 24)**/Volume indicator** (p. 36)**/Date indicator** (p. 29)

9 **PROGRAM AE indicator** (p. 61)

10 **Backlight indicator** (p. 30)

11 **SteadyShot off indicator** (p. 117)

12 **Manual focus/Infinity indicator** (p. 65)

13 **Recording mode indicator** (p. 29)

14 **STBY/REC indicator** (p. 21)**/Video control mode indicator** (p. 36)**/Image size indicator** (DCR-TRV20E only) (p. 136)**/Image quality mode indicator** (DCR-TRV11E/TRV20E only) (p. 134)

1 **Индикатор кассетной памяти** (стр. 29, 171)

2 **Индикатор оставшегося заряда батарейного блока** (стр. 29)

3 **Индикатор трансфокации** (стр. 27)/ **Индикатор экспозиции** (стр. 64)/ **Индикатор названия файла данных** (только для модели DCR-TRV11E/TRV20E) (стр. 131)

4 **Индикатор цифрового эффекта** (стр. 58) **/Индикатор MEMORY MIX** (только для модели DCR-TRV11E/TRV20E) (стр. 144)/ **Индикатор FADER** (стр. 53)

5 **Индикатор режима 16:9WIDE** (стр. 51)

6 **Индикатор эффекта изображения** (стр. 56)

7 **Индикатор кода данных** (стр. 37)

8 **Индикатор яркости ЖКД** (стр. 24)/ **Индикатор громкости** (стр. 36)/ **Индикатор даты** (стр. 29)

9 **Индикатор PROGRAM AE** (стр. 61)

10 **Индикатор задней подсветки** (стр. 30)

11 **Индикатор выключенной устойчивой съемки** (стр. 123)

12 **Индикатор ручной фокусировки/ бесконечности** (стр. 65)

13 **Индикатор режима записи** (стр. 29)

14 **Индикатор STBY/REC** (стр. 21)**/Индикатор режима видеоконтроля** (стр. 36)/ **Индикатор размера изображения** (только для модели DCR-TRV20E) (стр. 136)/ **Индикатор режима качества изображения** (только для модели DCR-TRV11E/TRV20E) (стр. 134)

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15 **NIGHTSHOT indicator** (p. 31)

16 **Warning indicators** (p. 183)

17 **Tape counter indicator** (p. 72)**/Time code indicator** (p. 29)**/Self-diagnosis indicator** (p. 182)**/Tape photo indicator** (p. 45)/ **Memory photo indicator** (DCR-TRV11E/TRV20E only) (P. 138)**/Image number indicator** (DCR-TRV11E/TRV20E only) (p. 155)

18 **Remaining tape indicator** (p. 29)**/Memory playback indicator** (DCR-TRV11E/TRV20E only) (p. 154)

19 **ZERO SET MEMORY indicator** (p. 72)

20 **END SEARCH indicator** (p. 34)

21 **Audio mode indicator** (p. 120)

22 **Data file name indicator** (DCR-TRV11E/TRV20E only)(p. 144) This indicator appears when the MEMORY MIX functions work.**/ Time indicator** (p. 29)

23 **Continuous mode indicator** (DCR-TRV11E/TRV20E only) (p. 140)

24 **Video flash ready indicator**
This indicator appears when you use the video flash light (not supplied).

25 **Self-timer indicator** (p. 33)

26 **Remaining battery time indicator** (p. 14)**/ Tape counter** (p. 22)**/Memory counter** (DCR-TRV11E/TRV20E only)**/Time code indicator** (p. 29)

27 **FULL charge indicator** (p. 14)

15 **Индикатор NIGHTSHOT** (стр. 31)

16 **Предупреждающие индикаторы** (стр. 192)

17 **Индикатор счетчика ленты** (стр. 72)**/ Индикатор кода времени** (стр. 29)**/ Индикатор функции самодиагностики** (стр. 191)**/Индикатор фотосъемки** (стр. 45)**/Индикатор фотоснимков в памяти** (только для модели DCR-TRV11E/TRV20E) (стр. 138)**/Индикатор номера изображения** (только для модели DCR-TRV11E/TRV20E) (стр. 155)

18 **Индикатор оставшейся ленты** (стр. 29)**/ Индикатор воспроизведения памяти** (только для модели DCR-TRV11E/TRV20E) (стр. 154)

19 **Индикатор ZERO SET MEMORY** (стр. 72)

20 **Индикатор END SEARCH** (стр. 34)

21 **Индикатор автоматического режима** (стр. 126)

22 **Индикатор названия файла данных** (только для модели DCR-TRV11E/TRV20E)(стр. 144) Этот индикатор появляется во время работы функции MEMORY MIX.**/Индикатор времени** (стр. 29)

23 **Индикатор непрерывного режима данных** (только для модели DCR-TRV11E/TRV20E) (стр. 140)

24 **Индикатор готовности видеовспышки**
Этот индикатор появляется при использовании видеовспышки (не прилагается).

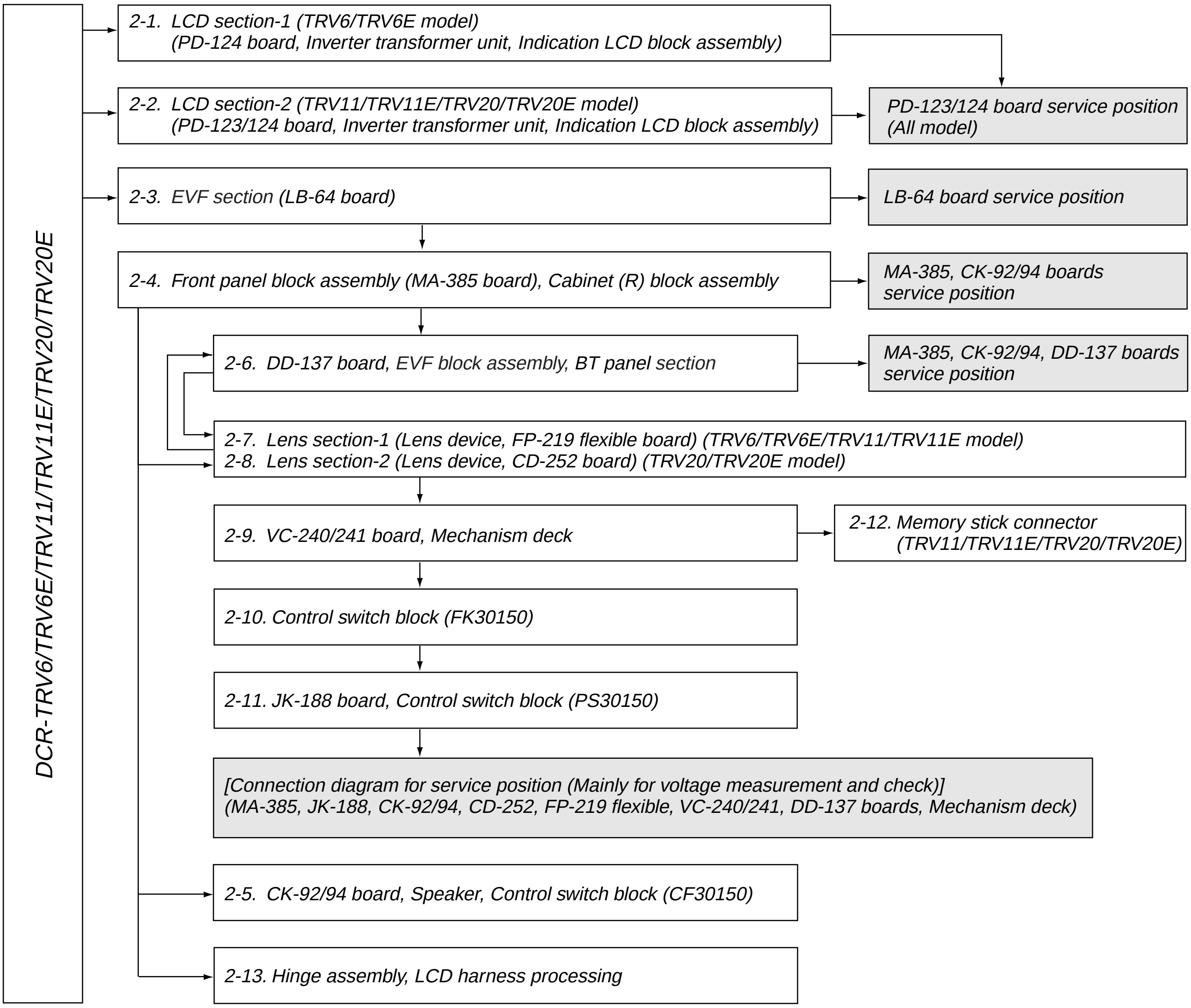
25 **Индикатор таймера самозапуска** (стр. 33)

26 **Индикатор оставшегося заряда батарейного блока** (стр. 14)**/Счетчик ленты** (стр. 22)**/Счетчик памяти** (только для модели DCR-TRV11E/TRV20E)**/ Индикатор кода времени** (стр. 29)

27 **Индикатор зарядки FULL** (стр. 14)

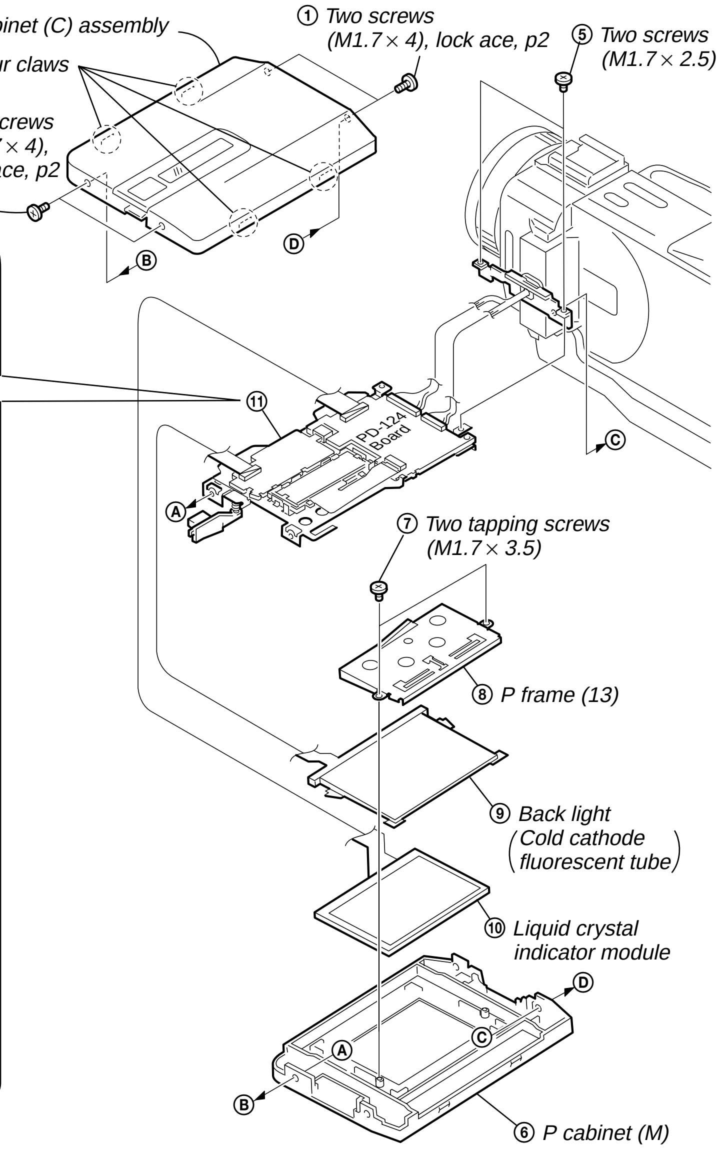
SECTION 2
DISASSEMBLY

The following flow chart shows the disassembly procedure.

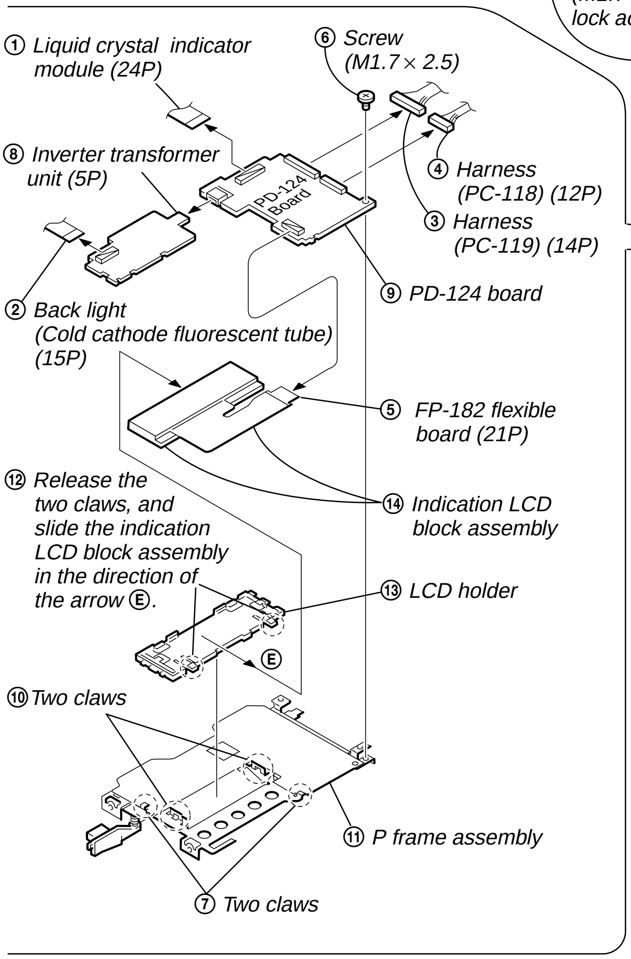

DCR-TRV6/TRV6E/TRV11/TRV11E/TRV20/TRV20E
2-1. LCD section-1 (TRV6/TRV6E model)
(PD-124 board, Inverter transformer unit, Indication LCD block assembly)
2-2. LCD section-2 (TRV11/TRV11E/TRV20/TRV20E model)
(PD-123/124 board, Inverter transformer unit, Indication LCD block assembly)
PD-123/124 board service position
(All model)
2-3. EVF section (LB-64 board)
LB-64 board service position
2-4. Front panel block assembly (MA-385 board), Cabinet (R) block assembly
MA-385, CK-92/94 boards
service position
2-6. DD-137 board, EVF block assembly, BT panel section
MA-385, CK-92/94, DD-137 boards
service position
2-7. Lens section-1 (Lens device, FP-219 flexible board) (TRV6/TRV6E/TRV11/TRV11E model)
2-8. Lens section-2 (Lens device, CD-252 board) (TRV20/TRV20E model)
2-9. VC-240/241 board, Mechanism deck
2-12. Memory stick connector
(TRV11/TRV11E/TRV20/TRV20E)
2-10. Control switch block (FK30150)
2-11. JK-188 board, Control switch block (PS30150)
[Connection diagram for service position (Mainly for voltage measurement and check)]
(MA-385, JK-188, CK-92/94, CD-252, FP-219 flexible, VC-240/241, DD-137 boards, Mechanism deck)
2-5. CK-92/94 board, Speaker, Control switch block (CF30150)
2-13. Hinge assembly, LCD harness processing

NOTE: Follow the disassembly procedure in the numerical order given.

2-1. LCD SECTION-1 (TRV6/TRV6E MODEL) (PD-124 BOARD, INVERTER TRANSFORMER UNIT, INDICATION LCD BLOCK ASSEMBLY)

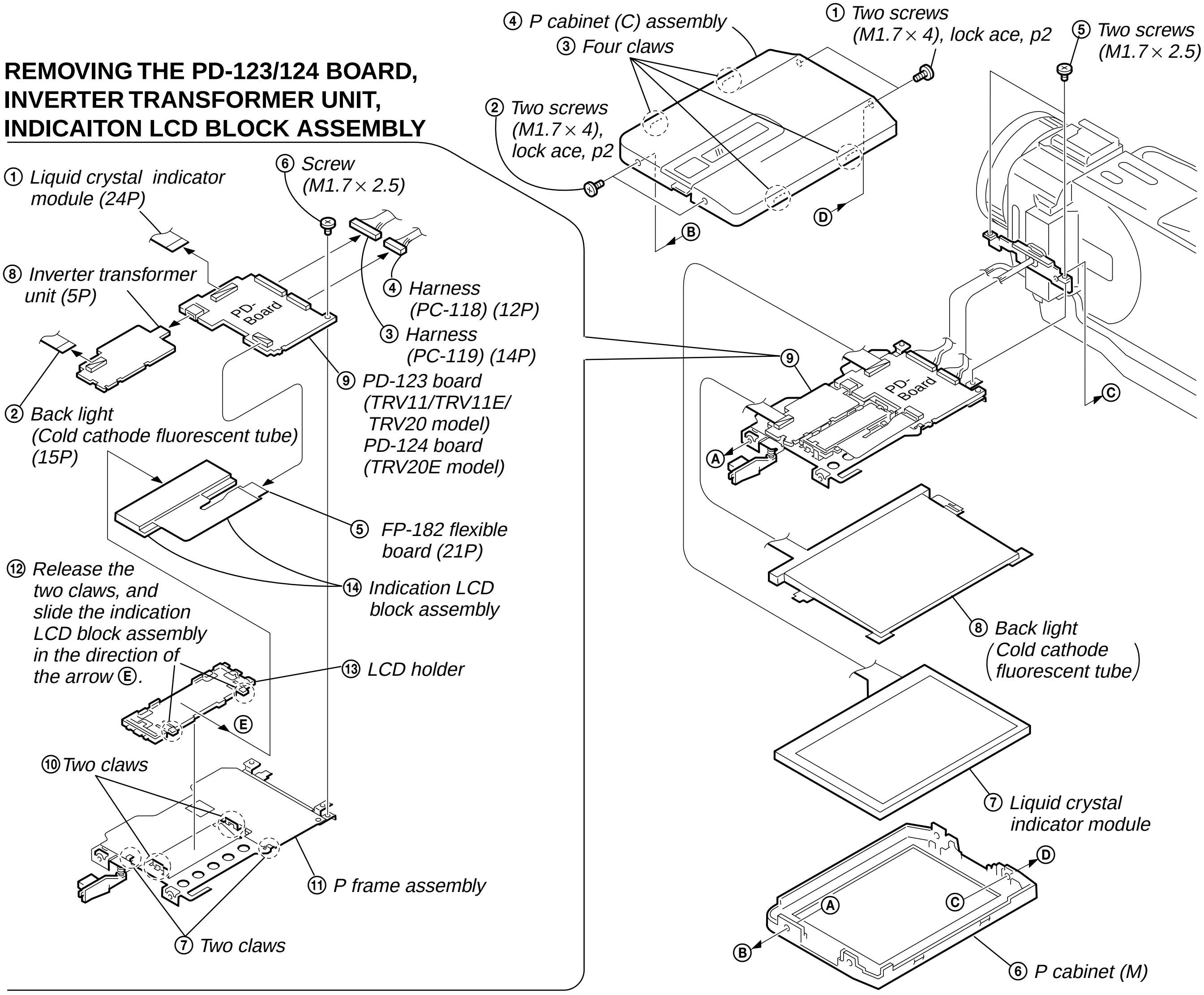

④ P cabinet (C) assembly
③ Four claws
② Two screws (M1.7 × 4), lock ace, p2
① Two screws (M1.7 × 4), lock ace, p2
⑤ Two screws (M1.7 × 2.5)
B
D
⑪
PD-124 Board
A
C
⑦ Two tapping screws (M1.7 × 3.5)
⑧ P frame (13)
⑨ Back light (Cold cathode fluorescent tube)
⑩ Liquid crystal indicator module
D
A
C
B
⑥ P cabinet (M)

REMOVING THE PD-124 BOARD, INVERTER TRANSFORMER UNIT, INDICAITON LCD BLOCK ASSEMBLY

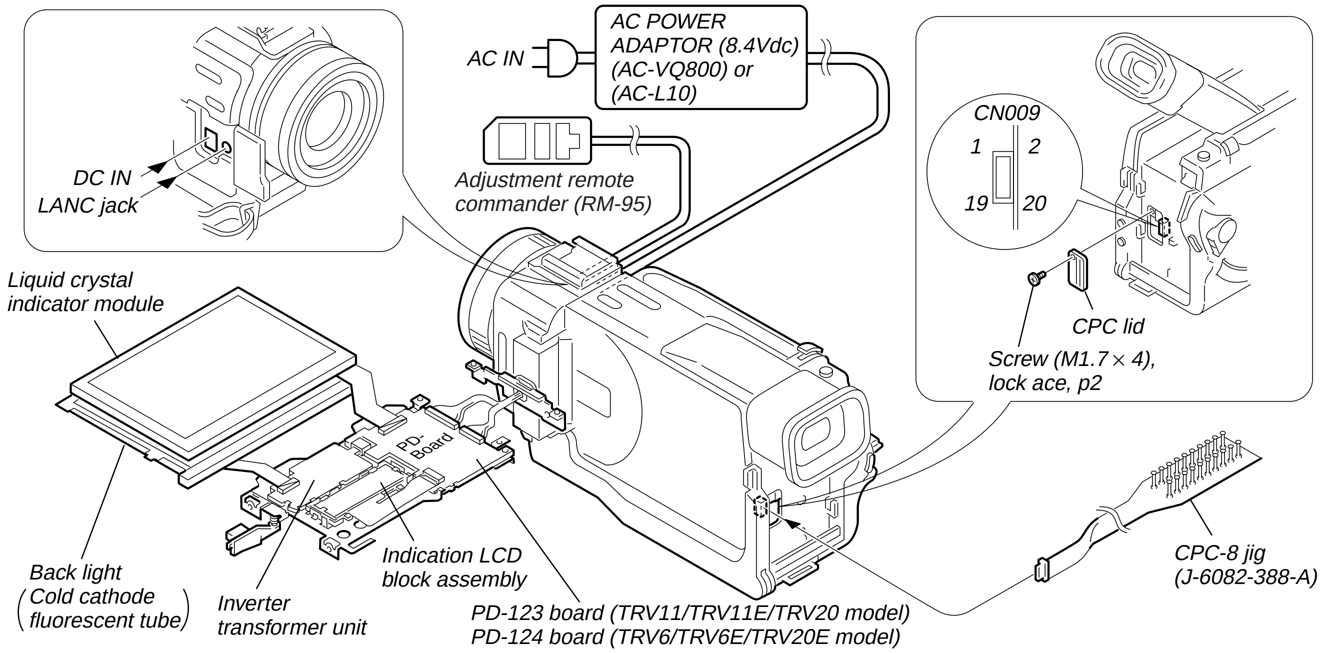

① Liquid crystal indicator module (24P)
⑥ Screw (M1.7 × 2.5)
⑧ Inverter transformer unit (5P)
PD-124 Board
④ Harness (PC-118) (12P)
③ Harness (PC-119) (14P)
⑨ PD-124 board
② Back light (Cold cathode fluorescent tube) (15P)
⑤ FP-182 flexible board (21P)
⑫ Release the two claws, and slide the indication LCD block assembly in the direction of the arrow Ⓔ.
⑭ Indication LCD block assembly
⑬ LCD holder
E
⑩ Two claws
⑪ P frame assembly
⑦ Two claws

2-2. LCD SECTION-2 (TRV11/TRV11E/TRV20/TRV20E MODEL) (PD-123/124 BOARD, INVERTER TRANSFORMER UNIT, INDICATION LCD BLOCK ASSEMBLY)

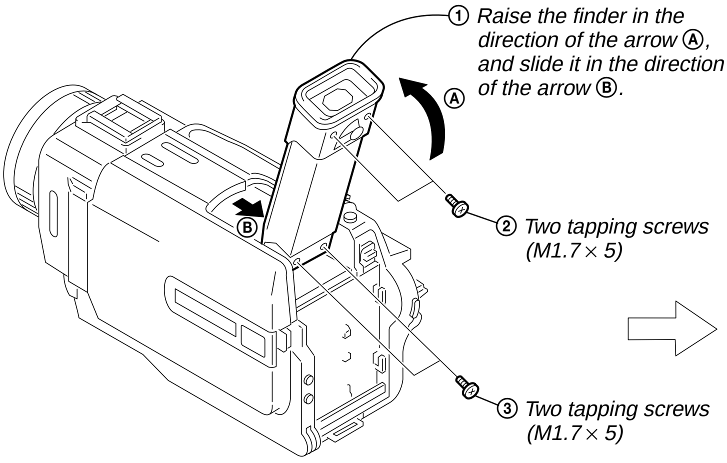
REMOVING THE PD-123/124 BOARD, INVERTER TRANSFORMER UNIT, INDICAITON LCD BLOCK ASSEMBLY

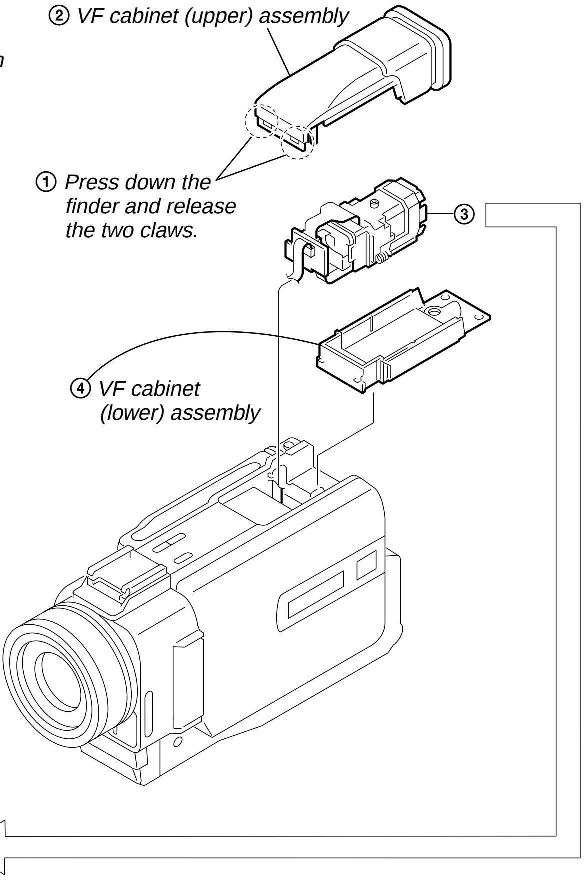

④ P cabinet (C) assembly
③ Four claws
① Two screws (M1.7 × 4), lock ace, p2
⑤ Two screws (M1.7 × 2.5)
② Two screws (M1.7 × 4), lock ace, p2
B
D
C
⑨
A
PD-Board
⑧ Back light (Cold cathode fluorescent tube)
⑦ Liquid crystal indicator module
D
A
C
B
⑥ P cabinet (M)
① Liquid crystal indicator module (24P)
⑥ Screw (M1.7 × 2.5)
⑧ Inverter transformer unit (5P)
④ Harness (PC-118) (12P)
③ Harness (PC-119) (14P)
⑨ PD-123 board (TRV11/TRV11E/ TRV20 model) PD-124 board (TRV20E model)
② Back light (Cold cathode fluorescent tube) (15P)
⑤ FP-182 flexible board (21P)
⑫ Release the two claws, and slide the indication LCD block assembly in the direction of the arrow Ⓔ.
⑭ Indication LCD block assembly
⑬ LCD holder
E
⑩ Two claws
⑪ P frame assembly
⑦ Two claws

[PD-123/124 BOARD SERVICE POSITION (ALL MODEL)]

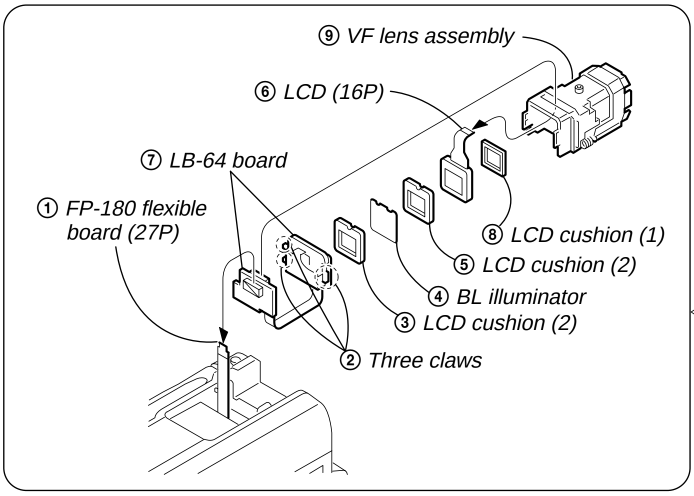

DC IN
LANC jack
AC IN
AC POWER ADAPTOR (8.4Vdc) (AC-VQ800) or (AC-L10)
Adjustment remote commander (RM-95)
CN009
1
2
19
20
CPC lid
Screw (M1.7 × 4), lock ace, p2
Liquid crystal indicator module
PD-Board
CPC-8 jig (J-6082-388-A)
Back light (Cold cathode fluorescent tube)
Inverter transformer unit
Indication LCD block assembly
PD-123 board (TRV11/TRV11E/TRV20 model)
PD-124 board (TRV6/TRV6E/TRV20E model)

2-3. EVF SECTION (LB-64 BOARD)

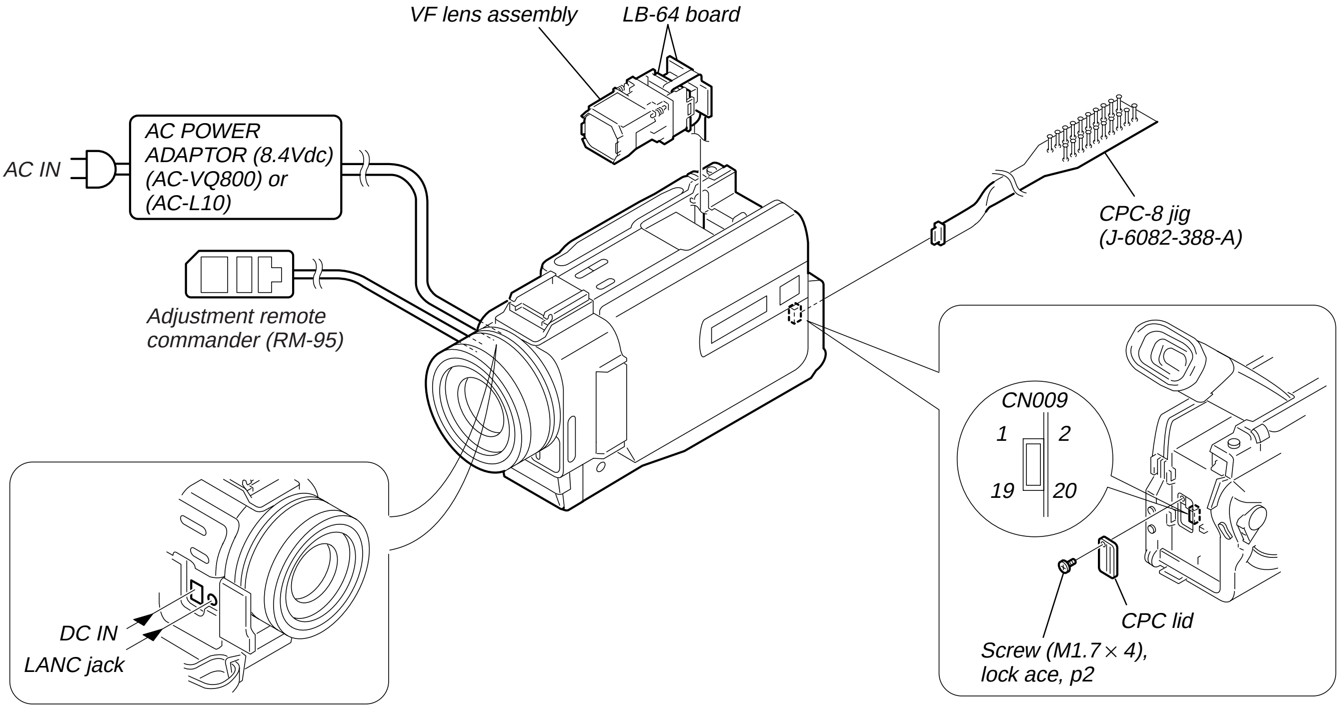

① Raise the finder in the direction of the arrow Ⓐ, and slide it in the direction of the arrow Ⓑ.
Ⓐ
Ⓑ
② Two tapping screws (M1.7 × 5)
③ Two tapping screws (M1.7 × 5)


② VF cabinet (upper) assembly
① Press down the finder and release the two claws.
③
④ VF cabinet (lower) assembly

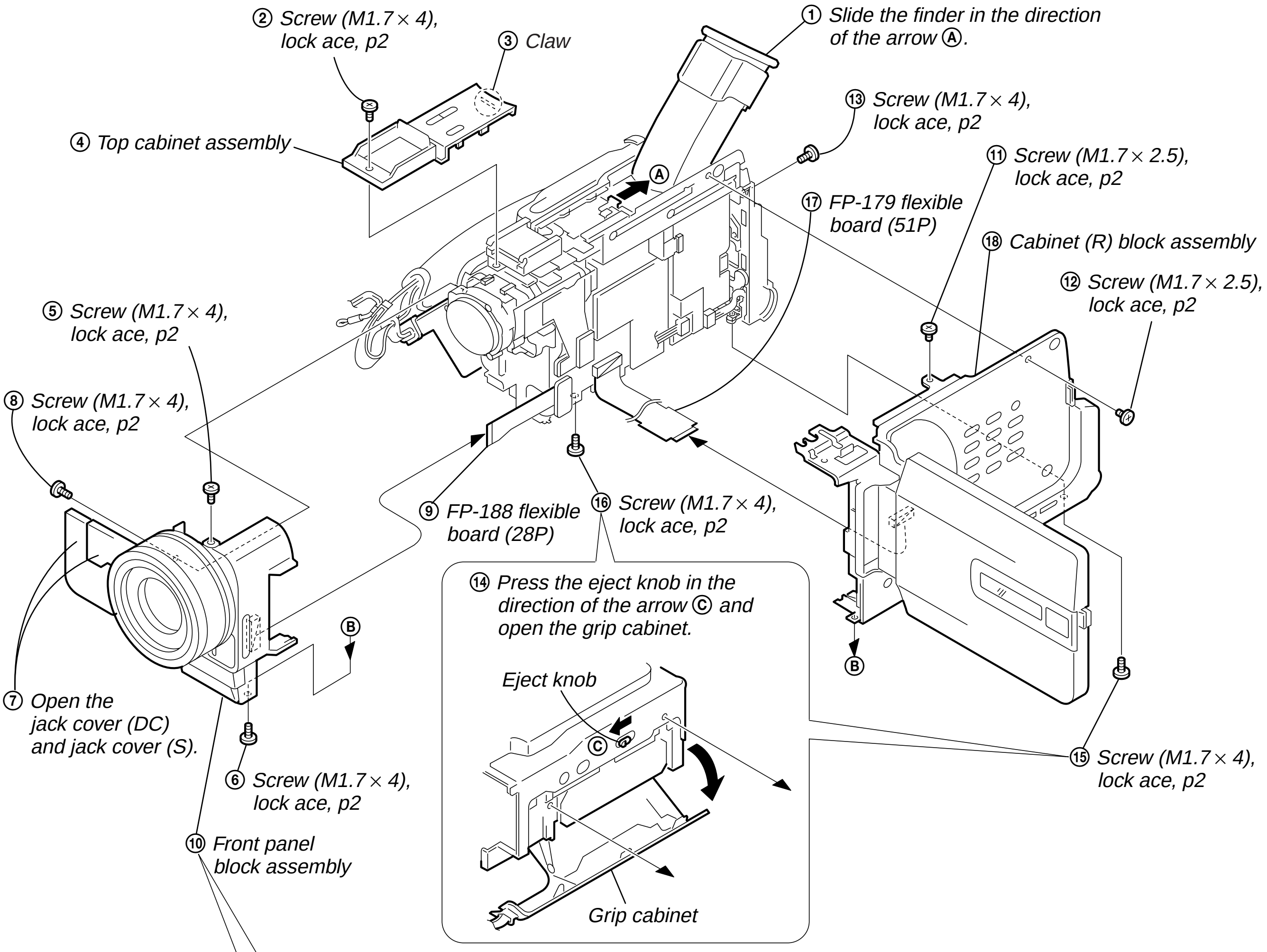
REMOVING THE LB-64 BOARD


⑨ VF lens assembly
⑥ LCD (16P)
⑦ LB-64 board
① FP-180 flexible board (27P)
⑧ LCD cushion (1)
⑤ LCD cushion (2)
④ BL illuminator
③ LCD cushion (2)
② Three claws

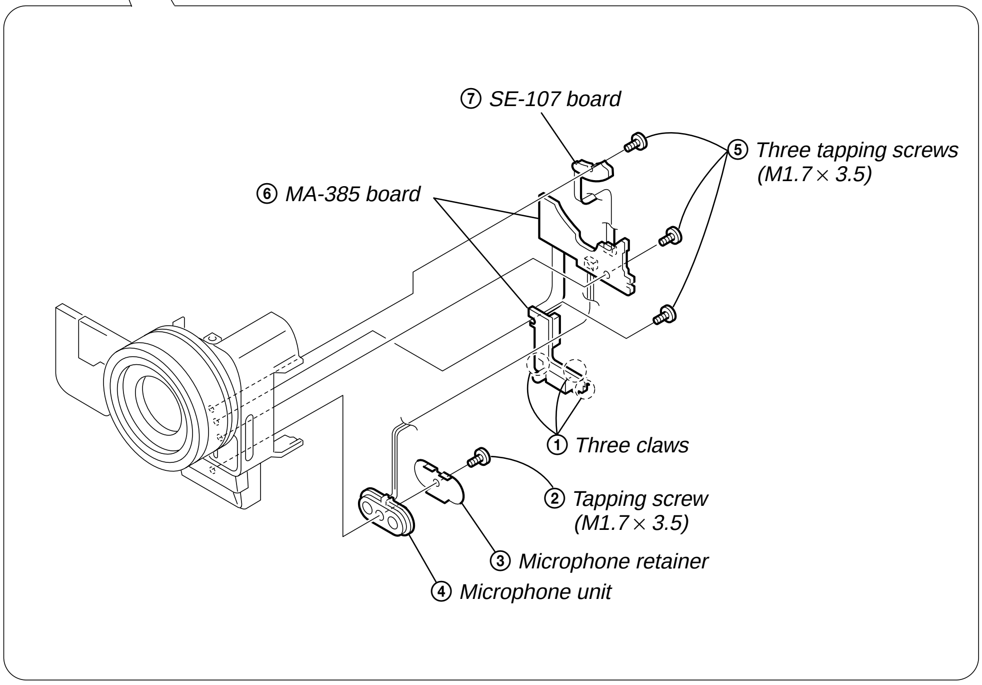
[LB-64 BOARD SERVICE POSITION]


VF lens assembly
LB-64 board
AC IN
AC POWER ADAPTOR (8.4Vdc) (AC-VQ800) or (AC-L10)
Adjustment remote commander (RM-95)
CPC-8 jig (J-6082-388-A)
CN009
1
2
19
20
CPC lid
Screw (M1.7 × 4), lock ace, p2
DC IN
LANC jack

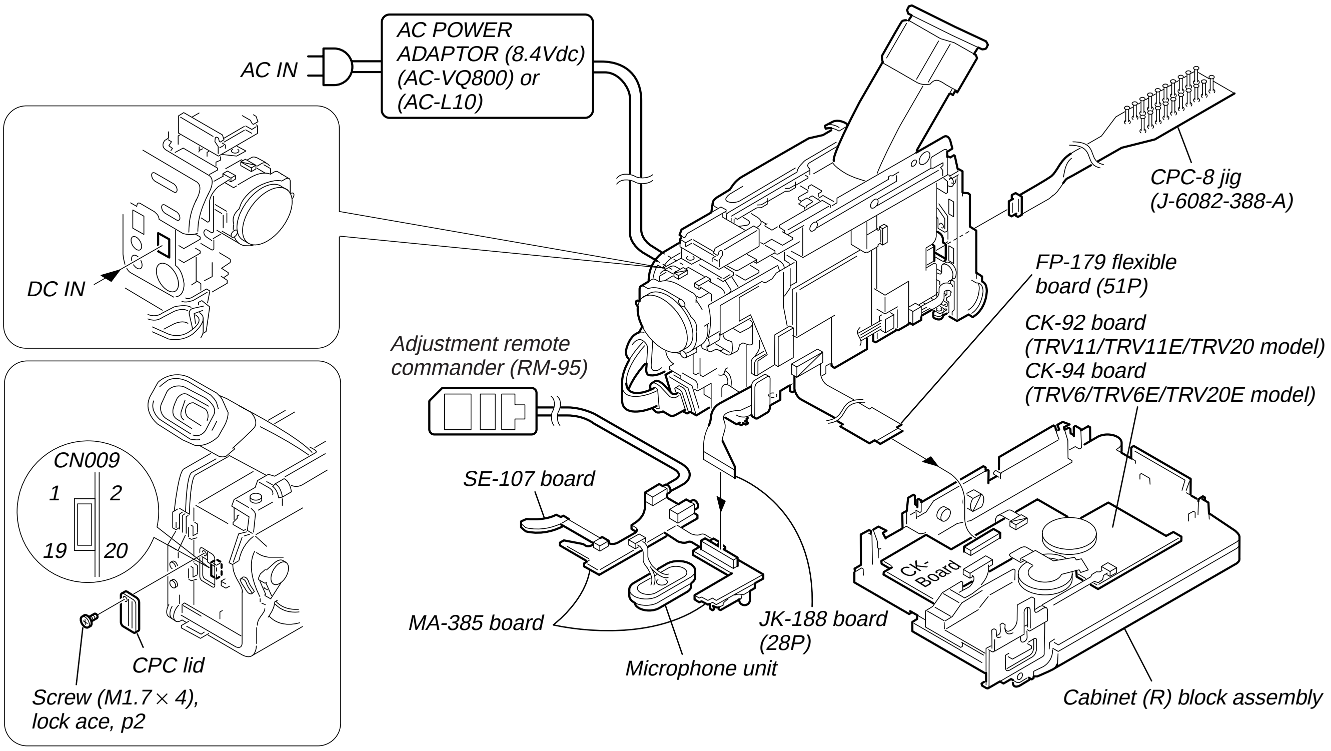
2-4. FRONT PANEL BLOCK ASSEMBLY (MA-385 BOARD), CABINET (R) BLOCK ASSEMBLY


① Slide the finder in the direction of the arrow Ⓐ.
② Screw (M1.7 × 4), lock ace, p2
③ Claw
④ Top cabinet assembly
⑤ Screw (M1.7 × 4), lock ace, p2
⑥ Screw (M1.7 × 4), lock ace, p2
⑦ Open the jack cover (DC) and jack cover (S).
⑧ Screw (M1.7 × 4), lock ace, p2
⑨ FP-188 flexible board (28P)
⑩ Front panel block assembly
⑪ Screw (M1.7 × 2.5), lock ace, p2
⑫ Screw (M1.7 × 2.5), lock ace, p2
⑬ Screw (M1.7 × 4), lock ace, p2
⑭ Press the eject knob in the direction of the arrow Ⓒ and open the grip cabinet.
⑮ Screw (M1.7 × 4), lock ace, p2
⑯ Screw (M1.7 × 4), lock ace, p2
⑰ FP-179 flexible board (51P)
⑱ Cabinet (R) block assembly
Ⓐ
Ⓑ
Ⓑ
Eject knob
Ⓒ
Grip cabinet

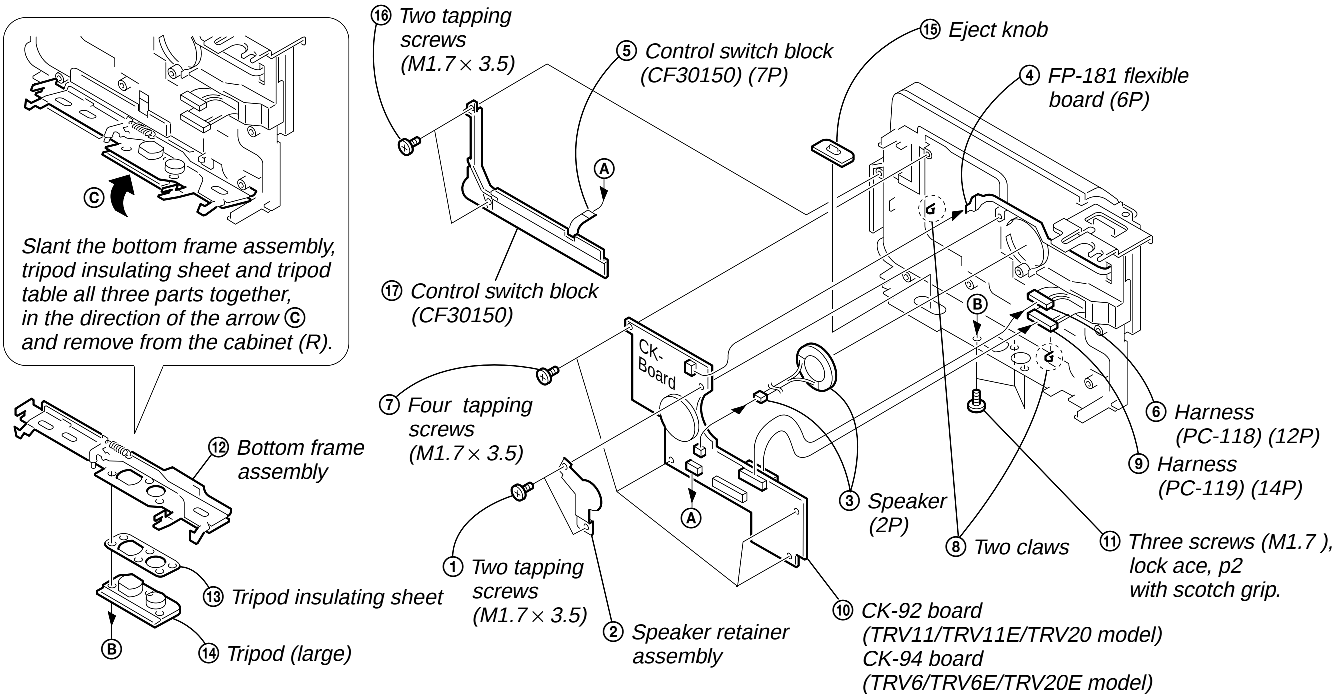
REMOVING THE MICROPHONE UNIT, MA-385, SE-107 BOARD


① Three claws
② Tapping screw (M1.7 × 3.5)
③ Microphone retainer
④ Microphone unit
⑤ Three tapping screws (M1.7 × 3.5)
⑥ MA-385 board
⑦ SE-107 board

[MA-385, CK-92/94 BOARDS SERVICE POSITION]

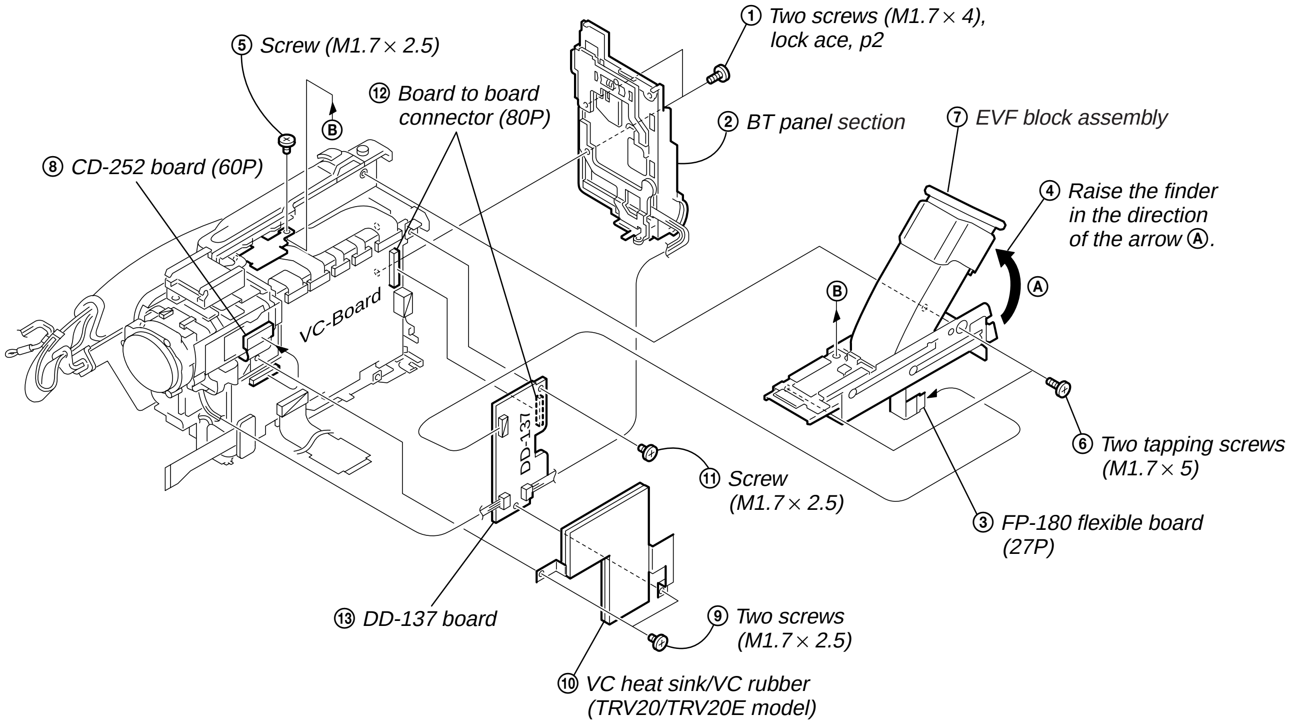

AC IN
AC POWER ADAPTOR (8.4Vdc) (AC-VQ800) or (AC-L10)
DC IN
CPC-8 jig (J-6082-388-A)
FP-179 flexible board (51P)
CK-92 board (TRV11/TRV11E/TRV20 model)
CK-94 board (TRV6/TRV6E/TRV20E model)
Adjustment remote commander (RM-95)
CN009
1
2
19
20
SE-107 board
CK-Board
MA-385 board
JK-188 board (28P)
Microphone unit
CPC lid
Screw (M1.7 × 4), lock ace, p2
Cabinet (R) block assembly

2-5. CK-92/94 BOARD, SPEAKER, CONTROL SWITCH BLOCK (CF30150)

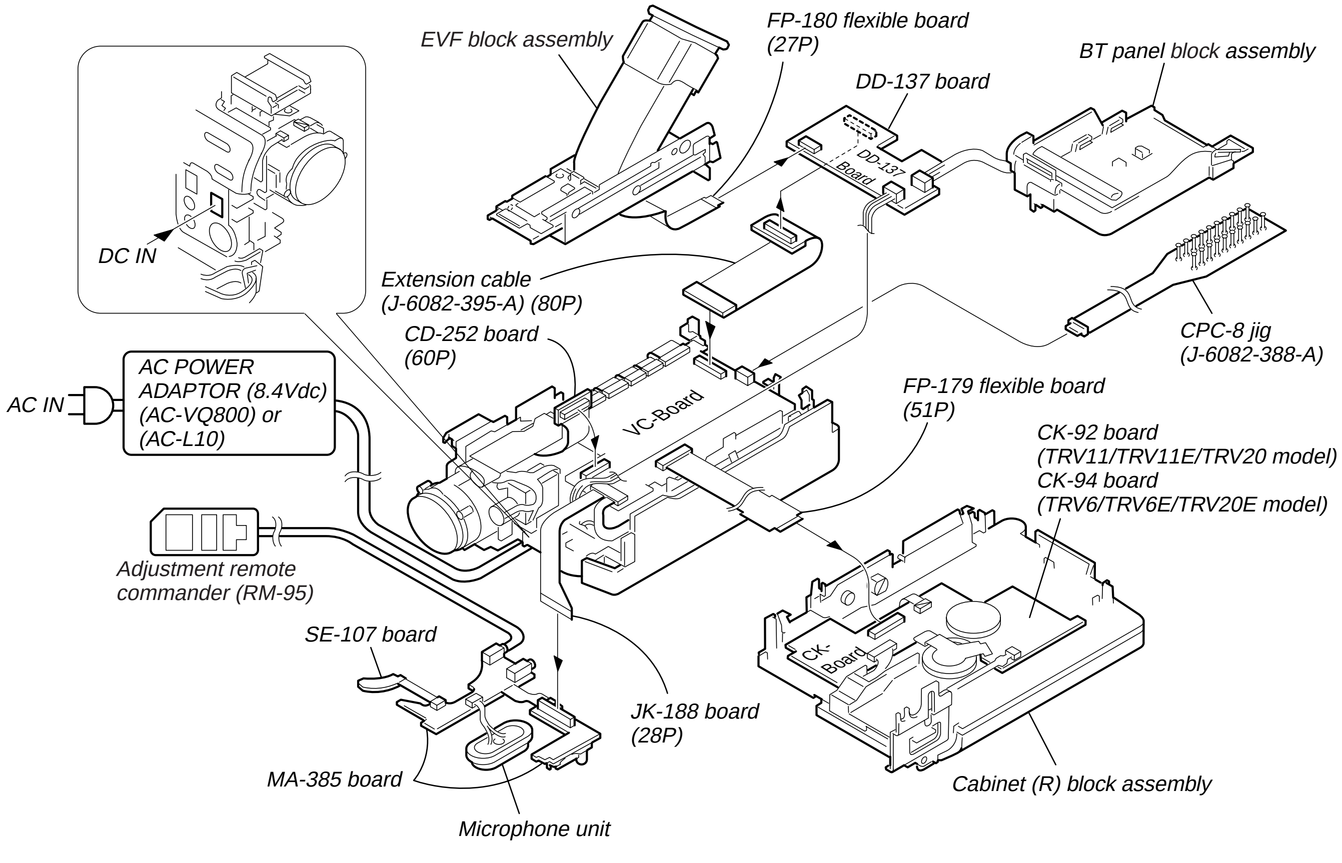

Slant the bottom frame assembly, tripod insulating sheet and tripod table all three parts together, in the direction of the arrow Ⓒ and remove from the cabinet (R).

Ⓒ
⑯ Two tapping screws (M1.7 × 3.5)
⑤ Control switch block (CF30150) (7P)
⑮ Eject knob
④ FP-181 flexible board (6P)
Ⓐ
⑰ Control switch block (CF30150)
Ⓑ
CK-Board
⑦ Four tapping screws (M1.7 × 3.5)
⑥ Harness (PC-118) (12P)
⑨ Harness (PC-119) (14P)
⑫ Bottom frame assembly
③ Speaker (2P)
⑧ Two claws
⑪ Three screws (M1.7), lock ace, p2 with scotch grip.
① Two tapping screws (M1.7 × 3.5)
⑬ Tripod insulating sheet
② Speaker retainer assembly
⑩ CK-92 board (TRV11/TRV11E/TRV20 model) CK-94 board (TRV6/TRV6E/TRV20E model)
⑭ Tripod (large)

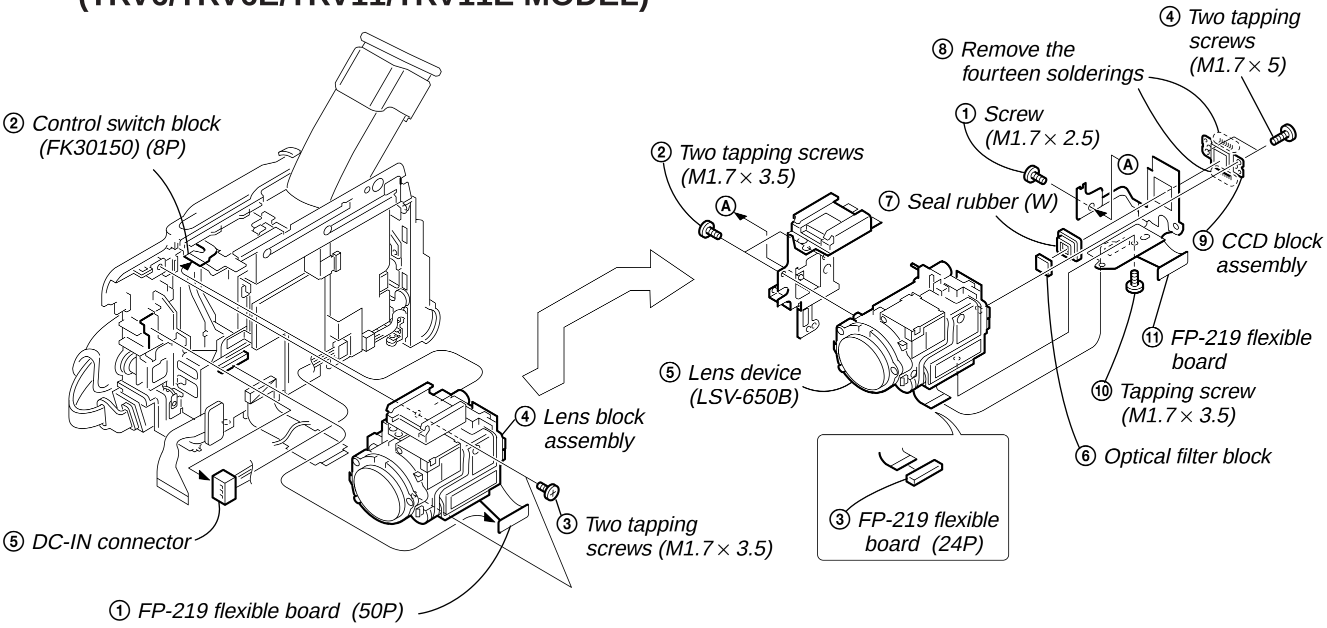
2-6. DD-137 BOARD, EVF BLOCK ASSEMBLY, BT PANEL SECTION


① Two screws (M1.7 × 4), lock ace, p2
② BT panel section
③ FP-180 flexible board (27P)
④ Raise the finder in the direction of the arrow Ⓐ.
⑤ Screw (M1.7 × 2.5)
⑥ Two tapping screws (M1.7 × 5)
⑦ EVF block assembly
⑧ CD-252 board (60P)
⑨ Two screws (M1.7 × 2.5)
⑩ VC heat sink/VC rubber (TRV20/TRV20E model)
⑪ Screw (M1.7 × 2.5)
⑫ Board to board connector (80P)
⑬ DD-137 board
Ⓐ
Ⓑ
Ⓑ
VC-Board
DD-137

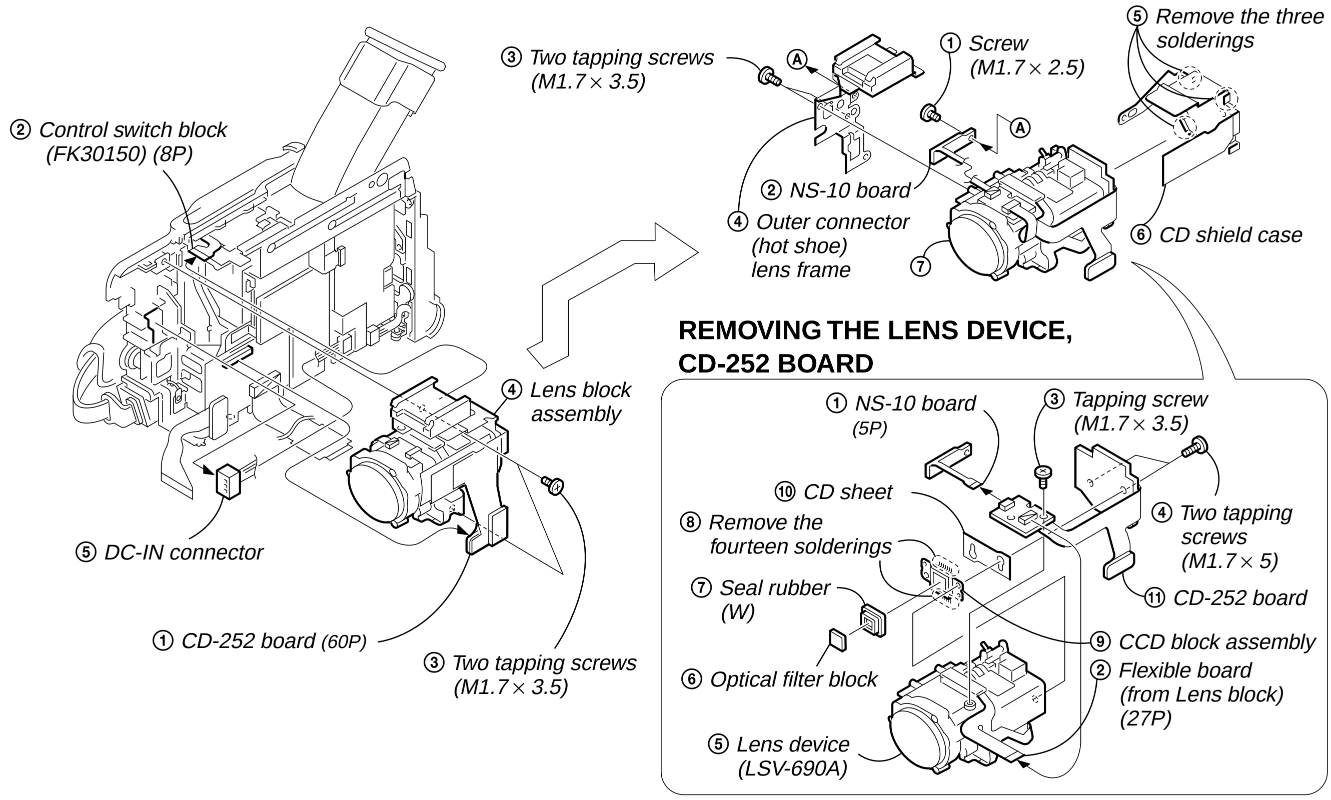
[MA-385, CK-92/94, DD-137 BOARDS SERVICE POSITION]


EVF block assembly
FP-180 flexible board (27P)
DD-137 board
BT panel block assembly
DD-137 Board
DC IN
Extension cable (J-6082-395-A) (80P)
CD-252 board (60P)
CPC-8 jig (J-6082-388-A)
AC IN
AC POWER ADAPTOR (8.4Vdc) (AC-VQ800) or (AC-L10)
FP-179 flexible board (51P)
VC-Board
CK-92 board (TRV11/TRV11E/TRV20 model)
CK-94 board (TRV6/TRV6E/TRV20E model)
Adjustment remote commander (RM-95)
SE-107 board
JK-188 board (28P)
CK-Board
MA-385 board
Microphone unit
Cabinet (R) block assembly

2-7. LENS SECTION-1 (LENS DEVICE, FP-219 FLEXIBLE BOARD) (TRV6/TRV6E/TRV11/TRV11E MODEL)

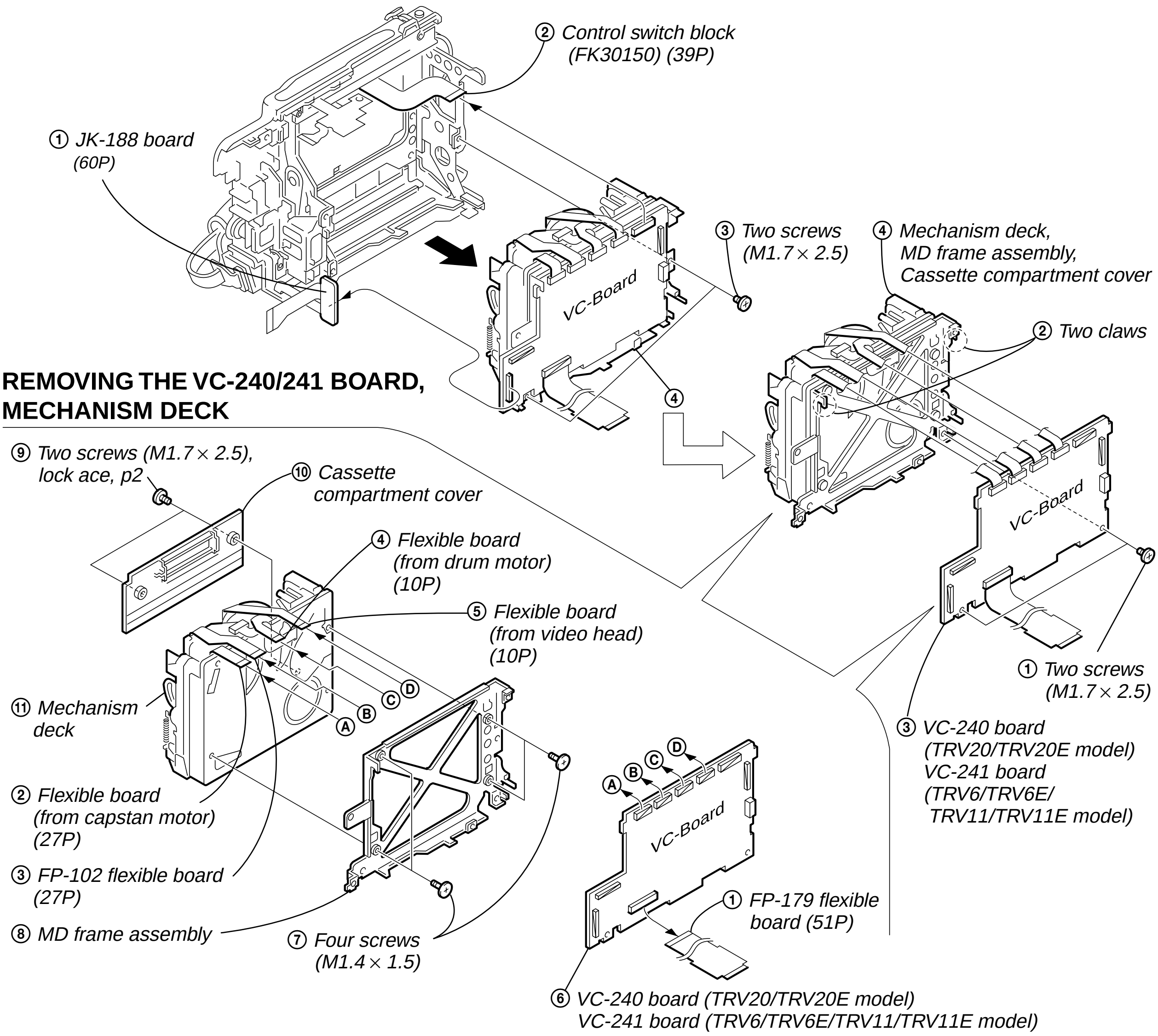

② Control switch block (FK30150) (8P)
⑤ DC-IN connector
① FP-219 flexible board (50P)
④ Lens block assembly
③ Two tapping screws (M1.7 × 3.5)
② Two tapping screws (M1.7 × 3.5)
A
⑧ Remove the fourteen solderings
① Screw (M1.7 × 2.5)
④ Two tapping screws (M1.7 × 5)
A
⑦ Seal rubber (W)
⑨ CCD block assembly
⑪ FP-219 flexible board
⑩ Tapping screw (M1.7 × 3.5)
⑤ Lens device (LSV-650B)
⑥ Optical filter block
③ FP-219 flexible board (24P)

2-8. LENS SECTION-2 (LENS DEVICE, CD-252 BOARD) (TRV20/TRV20E MODEL)

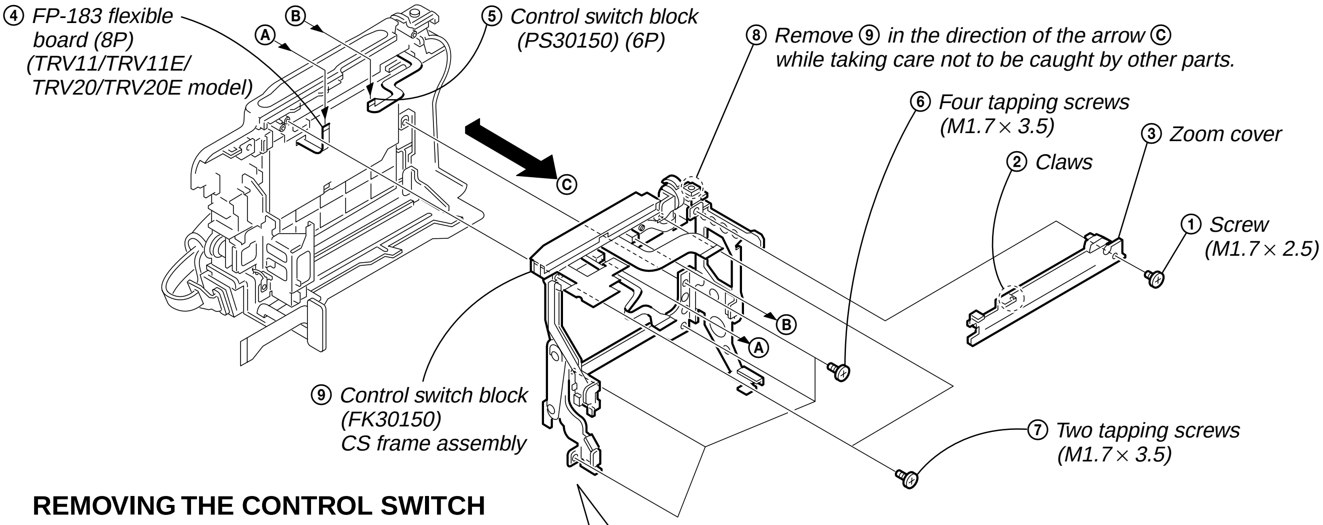

② Control switch block (FK30150) (8P)
⑤ DC-IN connector
① CD-252 board (60P)
④ Lens block assembly
③ Two tapping screws (M1.7 × 3.5)
③ Two tapping screws (M1.7 × 3.5)
A
① Screw (M1.7 × 2.5)
A
⑤ Remove the three solderings
② NS-10 board
④ Outer connector (hot shoe) lens frame
⑦
⑥ CD shield case
REMOVING THE LENS DEVICE, CD-252 BOARD
① NS-10 board (5P)
③ Tapping screw (M1.7 × 3.5)
⑩ CD sheet
⑧ Remove the fourteen solderings
④ Two tapping screws (M1.7 × 5)
⑦ Seal rubber (W)
⑪ CD-252 board
⑨ CCD block assembly
⑥ Optical filter block
② Flexible board (from Lens block) (27P)
⑤ Lens device (LSV-690A)

2-9. VC-240/241 BOARD, MECHANISM DECK

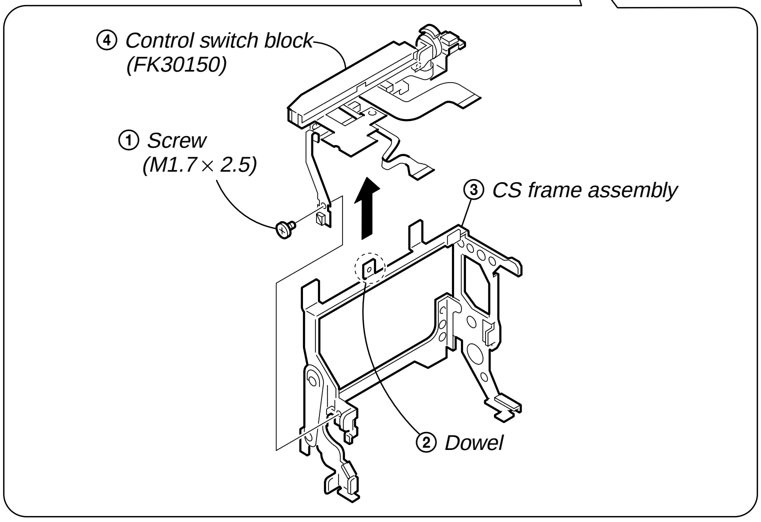
REMOVING THE VC-240/241 BOARD, MECHANISM DECK


② Control switch block (FK30150) (39P)
① JK-188 board (60P)
③ Two screws (M1.7 × 2.5)
④ Mechanism deck, MD frame assembly, Cassette compartment cover
VC-Board
④
② Two claws
VC-Board
① Two screws (M1.7 × 2.5)
③ VC-240 board (TRV20/TRV20E model) VC-241 board (TRV6/TRV6E/ TRV11/TRV11E model)
⑨ Two screws (M1.7 × 2.5), lock ace, p2
⑩ Cassette compartment cover
④ Flexible board (from drum motor) (10P)
⑤ Flexible board (from video head) (10P)
Ⓐ Ⓑ Ⓒ Ⓓ
⑪ Mechanism deck
② Flexible board (from capstan motor) (27P)
③ FP-102 flexible board (27P)
⑧ MD frame assembly
⑦ Four screws (M1.4 × 1.5)
Ⓐ Ⓑ Ⓒ Ⓓ
VC-Board
① FP-179 flexible board (51P)
⑥ VC-240 board (TRV20/TRV20E model) VC-241 board (TRV6/TRV6E/TRV11/TRV11E model)

2-10. CONTROL SWITCH BLOCK (FK30150)

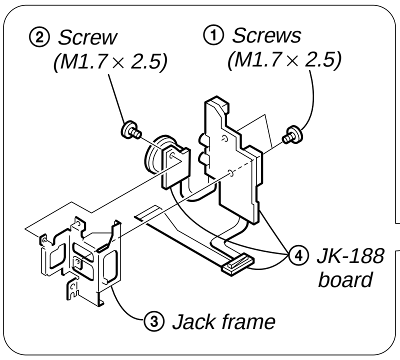

④ FP-183 flexible board (8P) (TRV11/TRV11E/ TRV20/TRV20E model)
Ⓐ
Ⓑ
⑤ Control switch block (PS30150) (6P)
⑧ Remove ⑨ in the direction of the arrow Ⓒ while taking care not to be caught by other parts.
Ⓒ
⑥ Four tapping screws (M1.7 × 3.5)
③ Zoom cover
② Claws
① Screw (M1.7 × 2.5)
Ⓑ
Ⓐ
⑨ Control switch block (FK30150) CS frame assembly
⑦ Two tapping screws (M1.7 × 3.5)

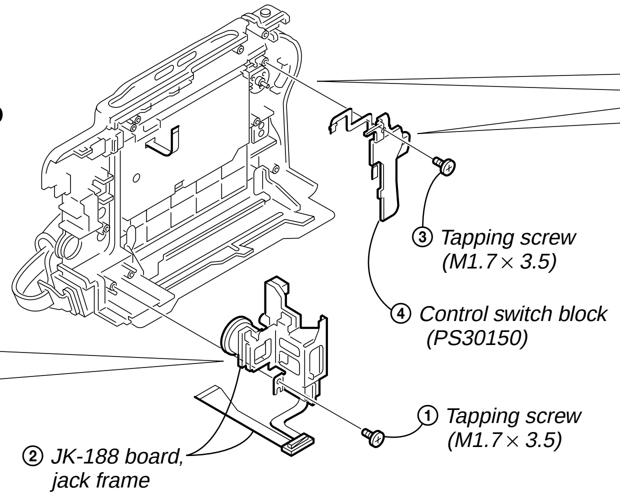
REMOVING THE CONTROL SWITCH BLOCK (FK30150), CS FRAME ASSEMBLY


④ Control switch block (FK30150)
① Screw (M1.7 × 2.5)
③ CS frame assembly
② Dowel

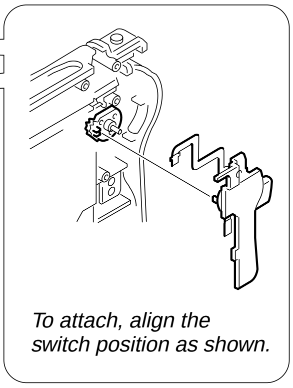
2-11. JK-188 BOARD, CONTROL SWITCH BLOCK (PS30150)

REMOVING THE JK-188 BOARD

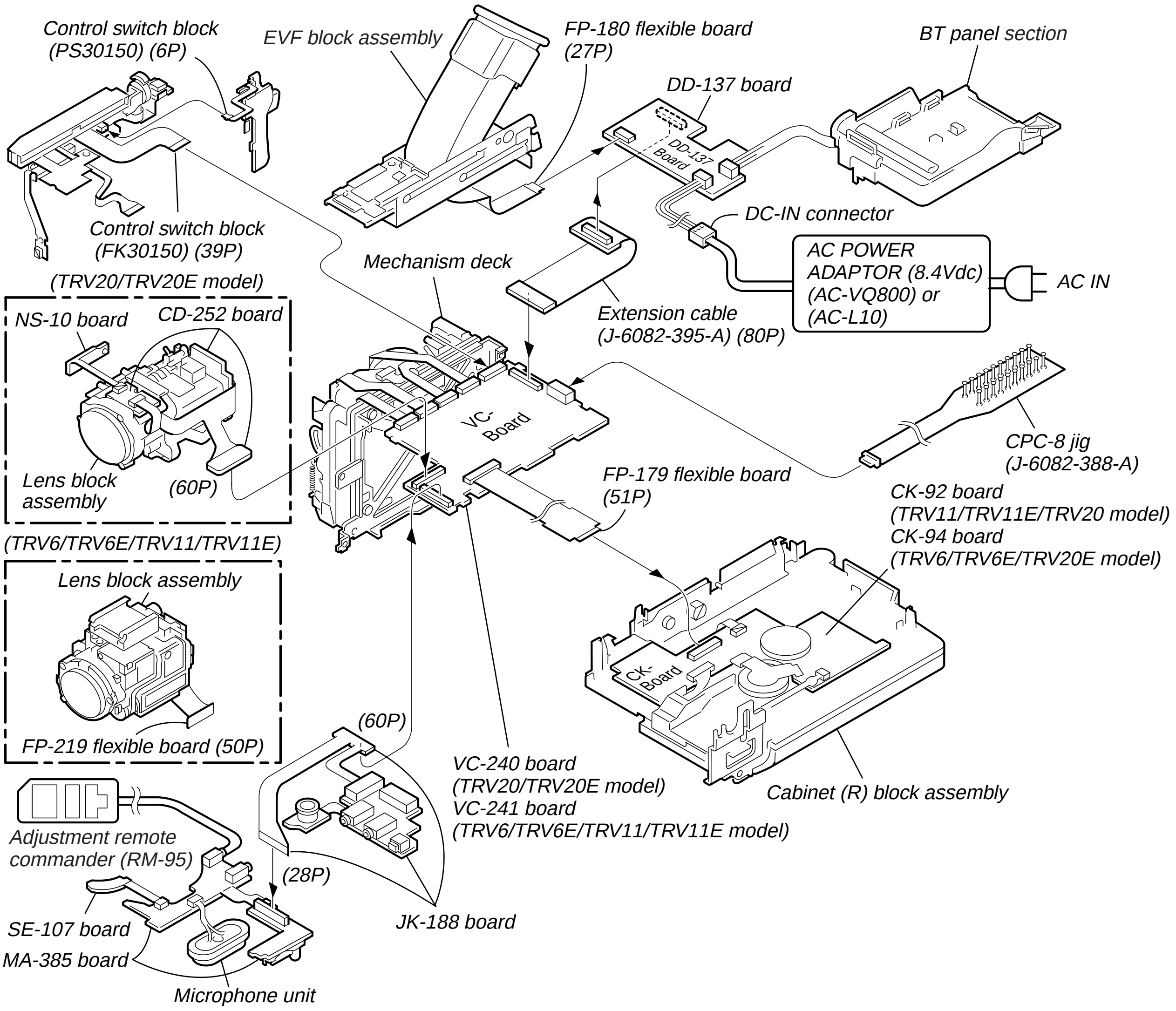

② Screw (M1.7 × 2.5)
① Screws (M1.7 × 2.5)
④ JK-188 board
③ Jack frame


③ Tapping screw (M1.7 × 3.5)
④ Control switch block (PS30150)
① Tapping screw (M1.7 × 3.5)
② JK-188 board, jack frame

PRECAUTION DURING INSTALLATION

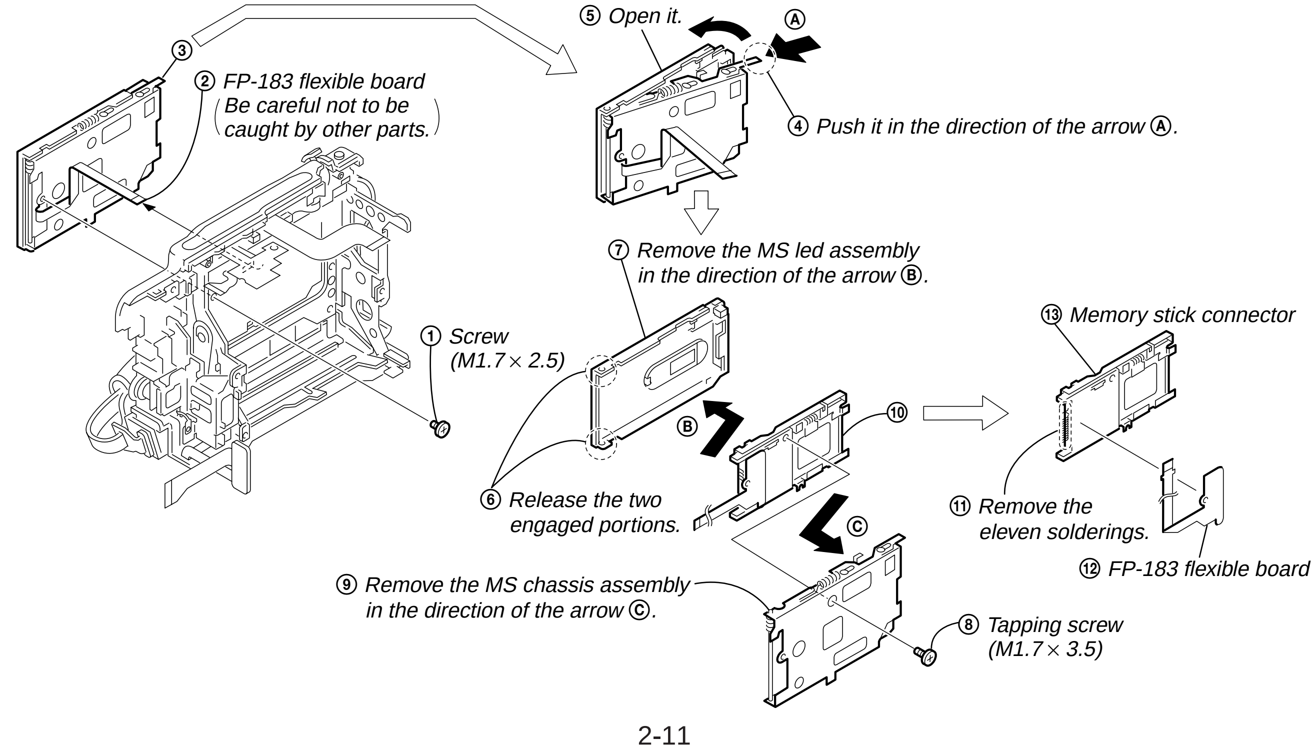

To attach, align the switch position as shown.

[Connection diagram for service position (Mainly for voltage measurement and check)]
(MA-385, JK-188, CK-92/94, CD-252, FP-219 FLEXIBLE, VC-240/241, DD-137 BOARDS, MECHANISM DECK)


Control switch block
(PS30150) (6P)
EVF block assembly
FP-180 flexible board
(27P)
BT panel section
DD-137 board
DD-137 Board
DC-IN connector
AC POWER
ADAPTOR (8.4Vdc)
(AC-VQ800) or
(AC-L10)
AC IN
Control switch block
(FK30150) (39P)
Mechanism deck
(TRV20/TRV20E model)
NS-10 board
CD-252 board
Extension cable
(J-6082-395-A) (80P)
VC-Board
CPC-8 jig
(J-6082-388-A)
Lens block
assembly
(60P)
FP-179 flexible board
(51P)
CK-92 board
(TRV11/TRV11E/TRV20 model)
CK-94 board
(TRV6/TRV6E/TRV20E model)
(TRV6/TRV6E/TRV11/TRV11E)
Lens block assembly
CK-Board
FP-219 flexible board (50P)
(60P)
VC-240 board
(TRV20/TRV20E model)
VC-241 board
(TRV6/TRV6E/TRV11/TRV11E model)
Cabinet (R) block assembly
Adjustment remote
commander (RM-95)
(28P)
SE-107 board
JK-188 board
MA-385 board
Microphone unit

2-12. MEMORY STICK CONNECTOR (TRV11/TRV11E/TRV20/TRV20E)

Perform the disassembling after steps ① – ④ of 2-10 is complete.



① Screw (M1.7 × 2.5)

② FP-183 flexible board (Be careful not to be caught by other parts.)

④ Push it in the direction of the arrow Ⓐ.

⑤ Open it.

⑥ Release the two engaged portions.

⑦ Remove the MS led assembly in the direction of the arrow Ⓑ.

⑧ Tapping screw (M1.7 × 3.5)

⑨ Remove the MS chassis assembly in the direction of the arrow Ⓒ.

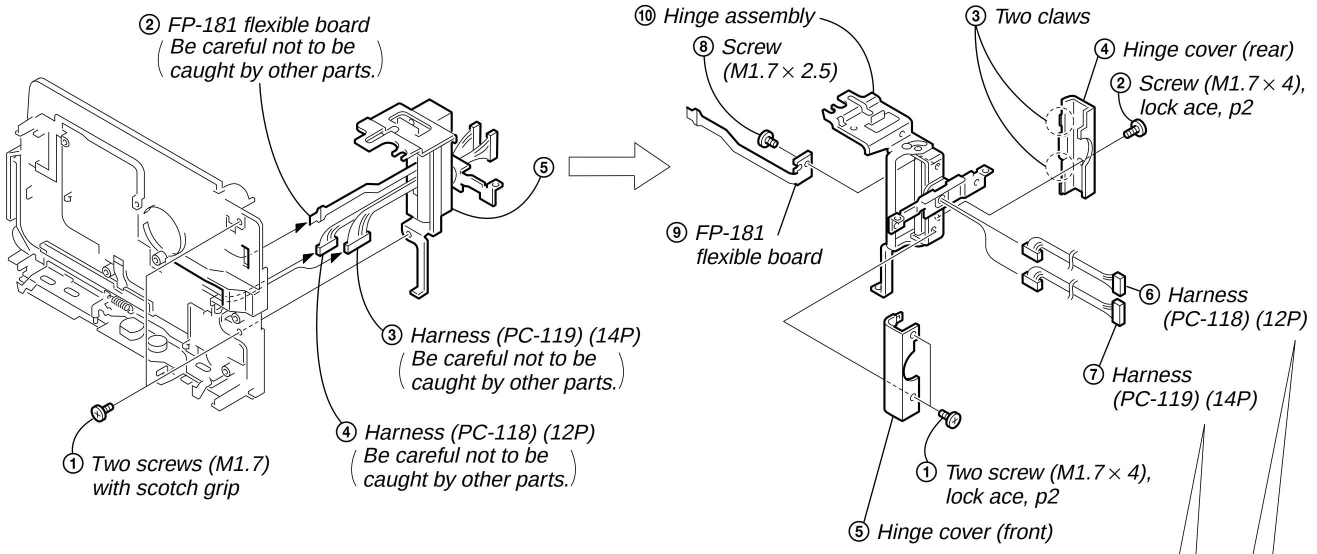
⑪ Remove the eleven solderings.

⑫ FP-183 flexible board

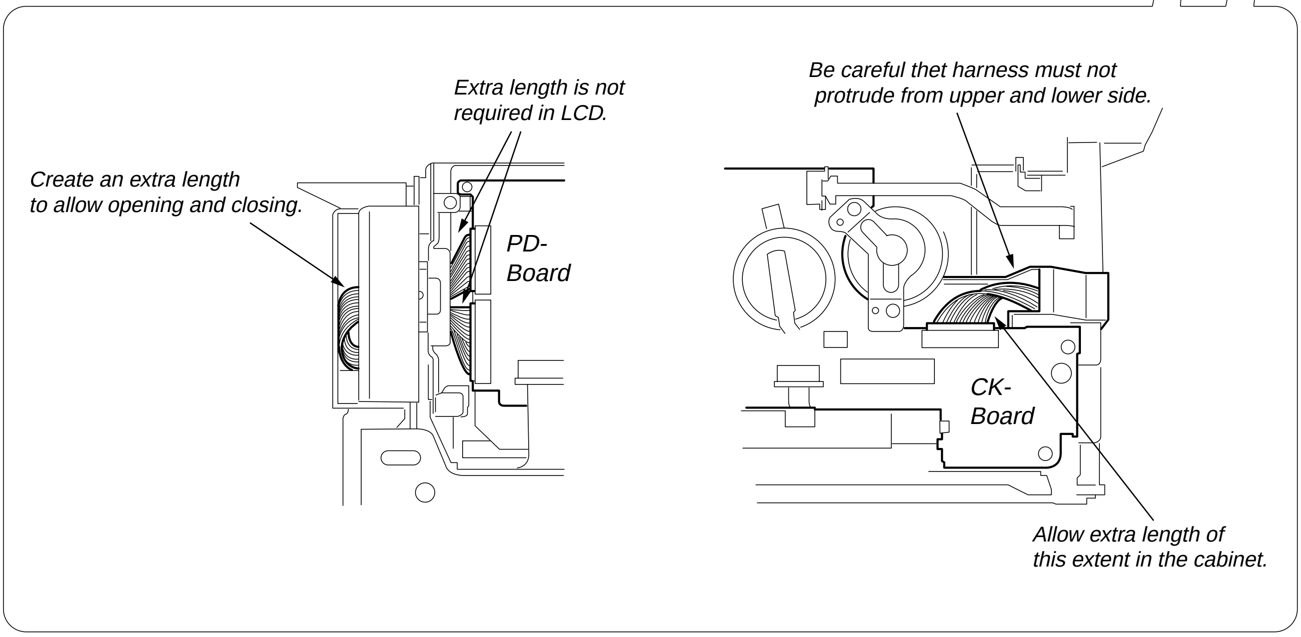
⑬ Memory stick connector

2-13. HINGE ASSEMBLY, LCD HARNESS PROCESSING

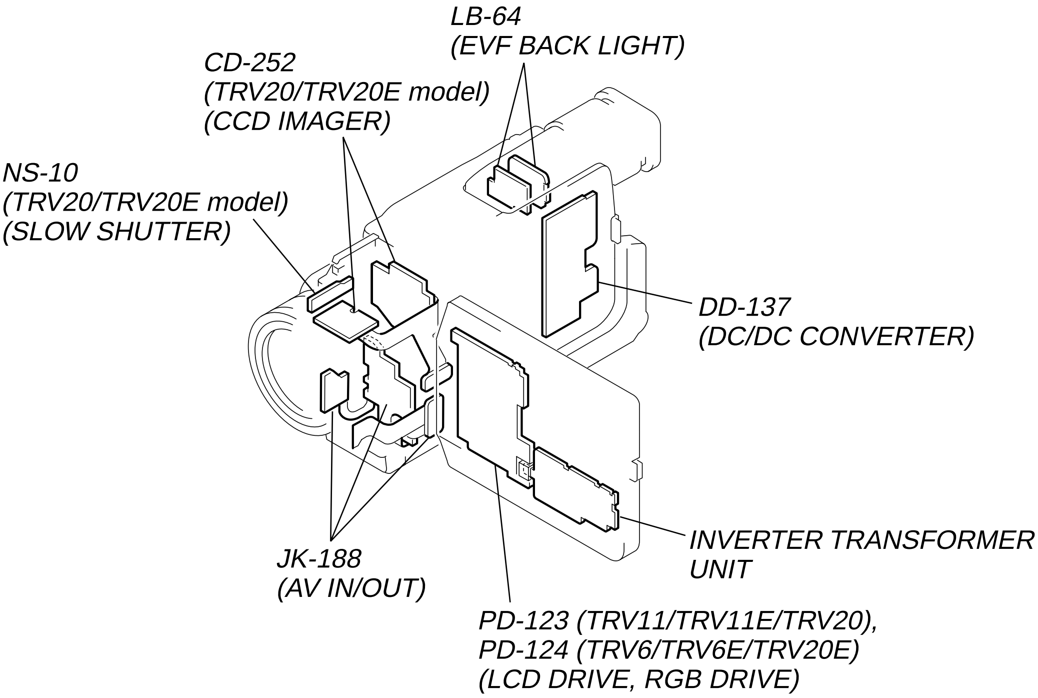
Start repair work after removing LCD by performing steps ① – ⑥ of 2-1 or 2-2 and remove the CK-92/94 board by performing steps ① – ⑩ of 2-5.

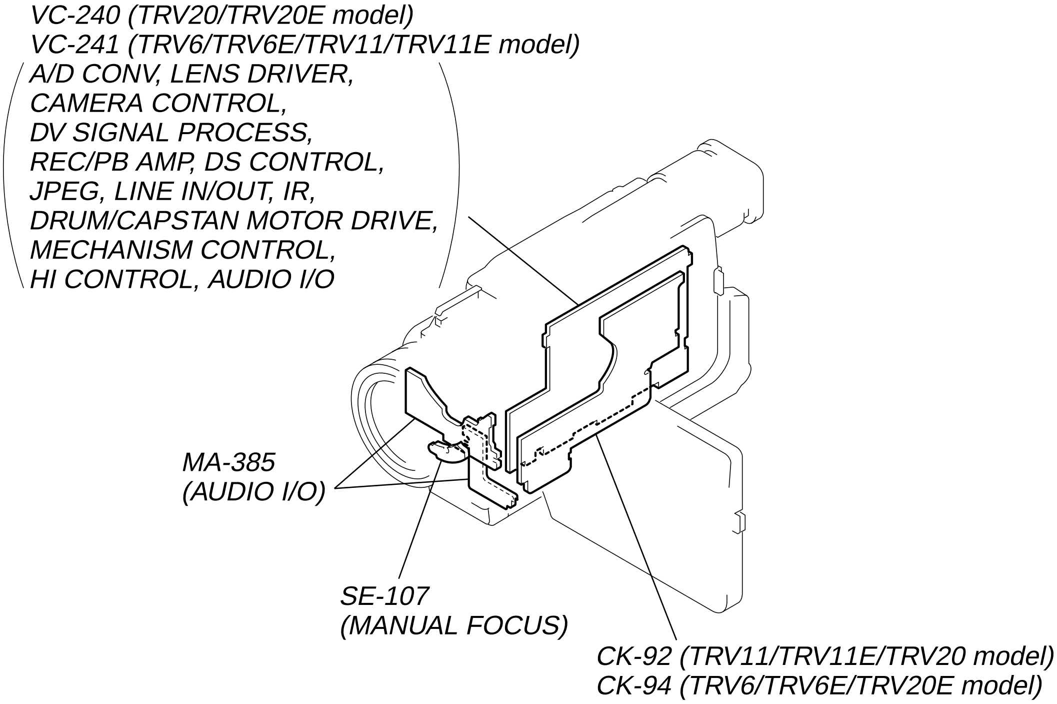

② FP-181 flexible board
(Be careful not to be caught by other parts.)
⑤
③ Harness (PC-119) (14P)
(Be careful not to be caught by other parts.)
④ Harness (PC-118) (12P)
(Be careful not to be caught by other parts.)
① Two screws (M1.7) with scotch grip
⑩ Hinge assembly
⑧ Screw (M1.7 × 2.5)
⑨ FP-181 flexible board
③ Two claws
④ Hinge cover (rear)
② Screw (M1.7 × 4), lock ace, p2
⑥ Harness (PC-118) (12P)
⑦ Harness (PC-119) (14P)
① Two screw (M1.7 × 4), lock ace, p2
⑤ Hinge cover (front)

PRECAUTION DURING INSTALLATION (LCD HARNESS PROCESSING)

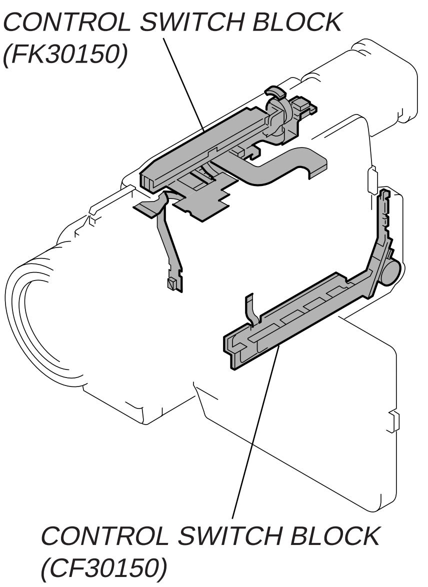

Extra length is not required in LCD.
Create an extra length to allow opening and closing.
PD-Board
Be careful thet harness must not protrude from upper and lower side.
CK-Board
Allow extra length of this extent in the cabinet.

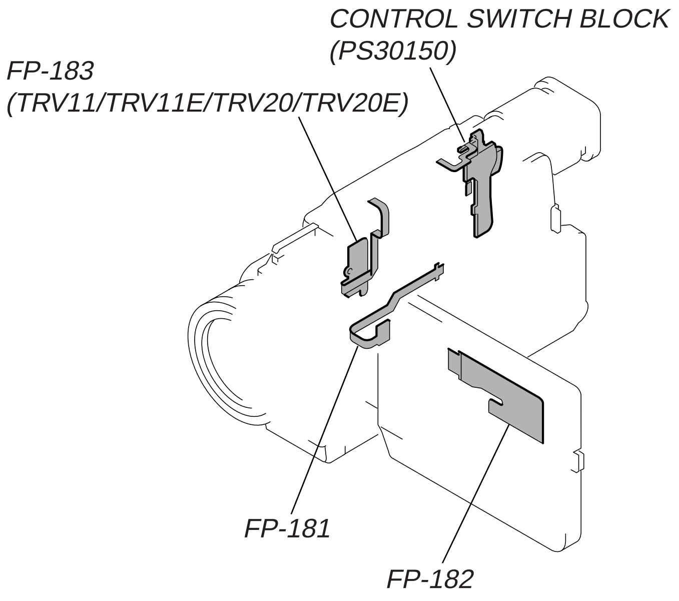
2-14. CIRCUIT BOARDS LOCATION

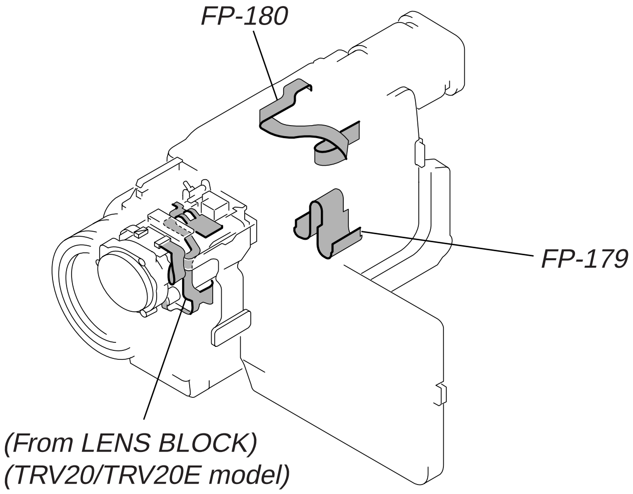

LB-64
(EVF BACK LIGHT)
CD-252
(TRV20/TRV20E model)
(CCD IMAGER)
NS-10
(TRV20/TRV20E model)
(SLOW SHUTTER)
DD-137
(DC/DC CONVERTER)
INVERTER TRANSFORMER
UNIT
JK-188
(AV IN/OUT)
PD-123 (TRV11/TRV11E/TRV20),
PD-124 (TRV6/TRV6E/TRV20E)
(LCD DRIVE, RGB DRIVE)

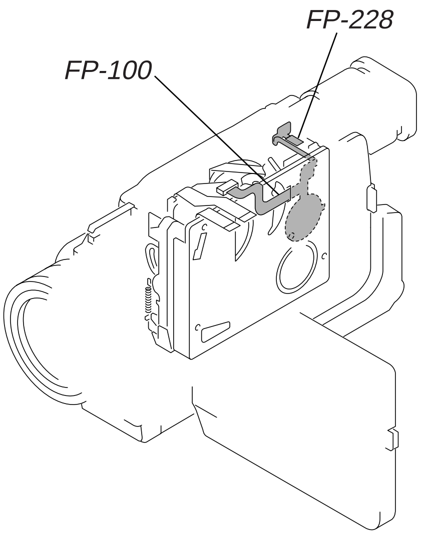

VC-240 (TRV20/TRV20E model)
VC-241 (TRV6/TRV6E/TRV11/TRV11E model)
A/D CONV, LENS DRIVER,
CAMERA CONTROL,
DV SIGNAL PROCESS,
REC/PB AMP, DS CONTROL,
JPEG, LINE IN/OUT, IR,
DRUM/CAPSTAN MOTOR DRIVE,
MECHANISM CONTROL,
HI CONTROL, AUDIO I/O
MA-385
(AUDIO I/O)
SE-107
(MANUAL FOCUS)
CK-92 (TRV11/TRV11E/TRV20 model)
CK-94 (TRV6/TRV6E/TRV20E model)
(KEY)

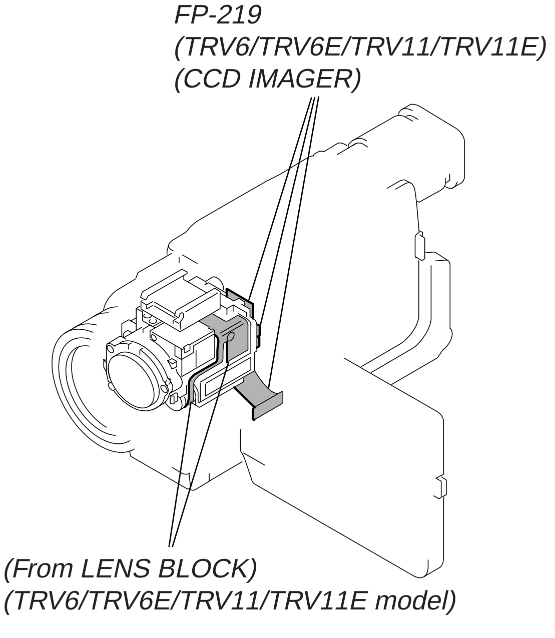
2-15. FLEXIBLE BOARDS LOCATION

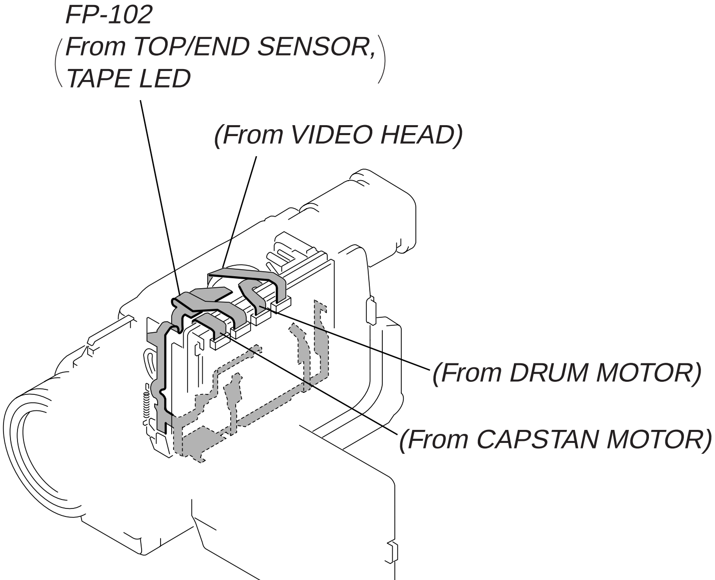

CONTROL SWITCH BLOCK
(FK30150)
CONTROL SWITCH BLOCK
(CF30150)


CONTROL SWITCH BLOCK
(PS30150)
FP-183
(TRV11/TRV11E/TRV20/TRV20E)
FP-181
FP-182


FP-180
FP-179
(From LENS BLOCK)
(TRV20/TRV20E model)


FP-228
FP-100

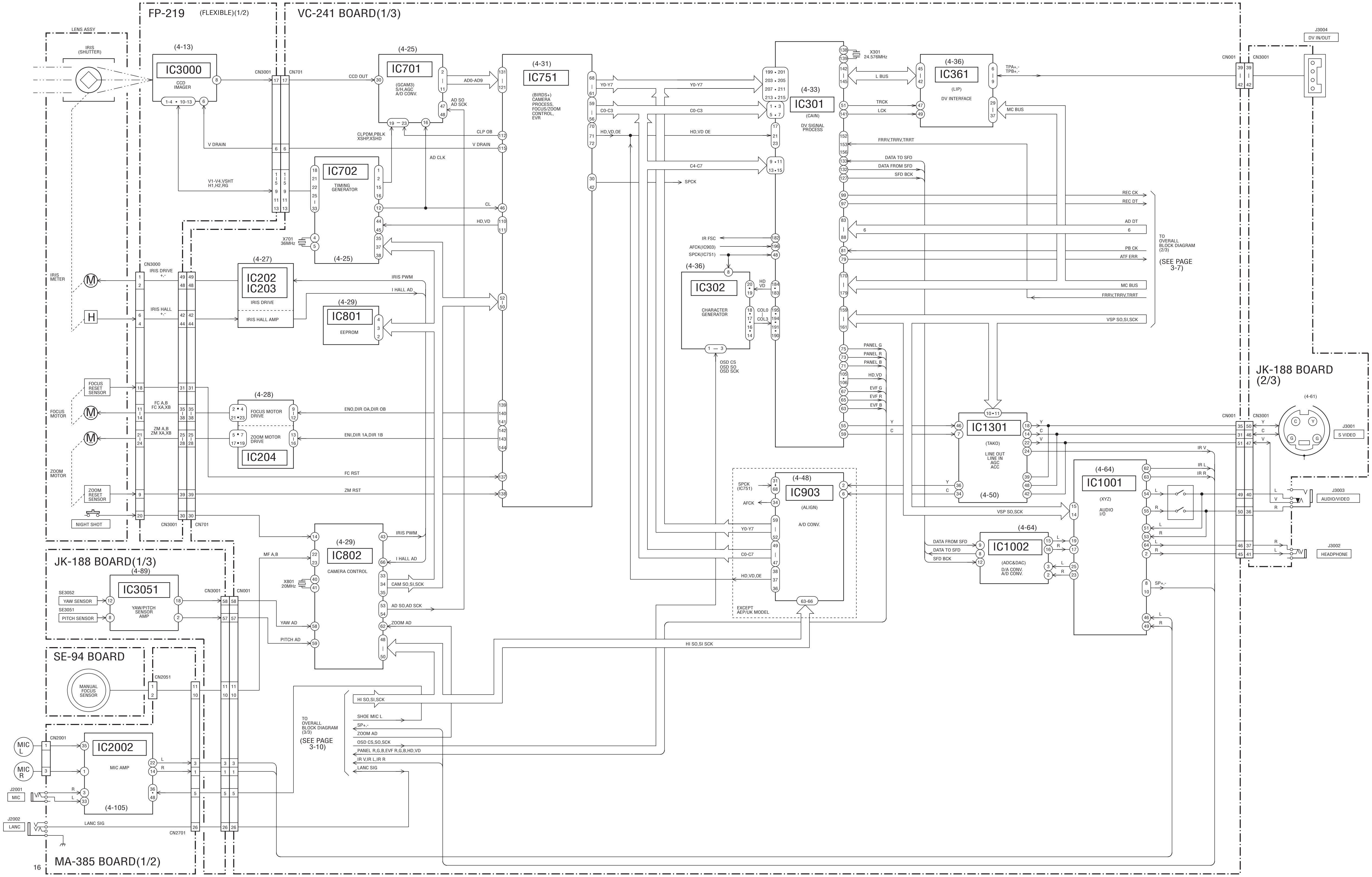

FP-219
(TRV6/TRV6E/TRV11/TRV11E)
(CCD IMAGER)
(From LENS BLOCK)
(TRV6/TRV6E/TRV11/TRV11E model)


FP-102
(From TOP/END SENSOR, TAPE LED)
(From VIDEO HEAD)
(From DRUM MOTOR)
(From CAPSTAN MOTOR)

SECTION 3
BLOCK DIAGRAMS

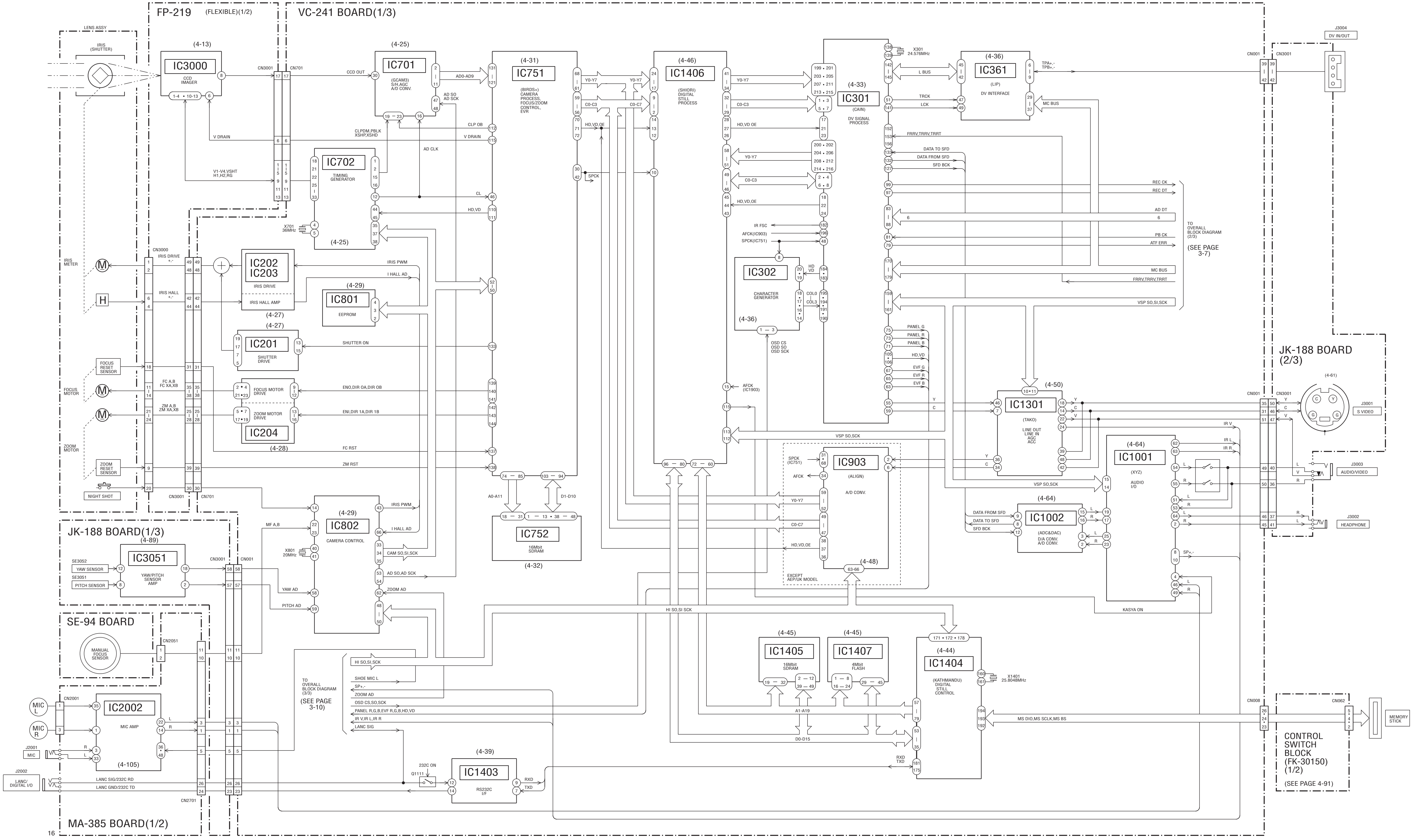
3-1. OVERALL BLOCK DIAGRAM (1/3) (DCR-TRV6/TRV6E)

( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.


FP-219 (FLEXIBLE)(1/2)
VC-241 BOARD(1/3)
LENS ASSY
IRIS (SHUTTER)
IC3000 (4-13) CCD IMAGER
IC701 (4-25) (GCAM3) S/H,AGC A/D CONV.
IC751 (4-31) (BIRDS+) CAMERA PROCESS, FOCUS/ZOOM CONTROL, EVR
IC702 (4-25) TIMING GENERATOR
IC301 (4-33) (GAIN) DV SIGNAL PROCESS
IC361 (4-36) (LIP) DV INTERFACE
X301 24.576MHz
X701 36MHz
CN3001
CN701
CCD OUT
AD0-AD9
AD SO AD SCK
CLP OB
V DRAIN
AD CLK
CLPDM,PBLK XSHP,XSHD
V1-V4,VSHT H1,H2,RG
CL
HD,VD
Y0-Y7
C0-C3
HD,VD,OE
C4-C7
SPCK
L BUS
TRCK
LCK
MC BUS
TPA+,- TPB+,-
FRRV,TRRV,TRRT
DATA TO SFD
DATA FROM SFD
SFD BCK
REC CK
REC DT
AD DT
PB CK
ATF ERR
VSP SO,SI,SCK
TO OVERALL BLOCK DIAGRAM (2/3) (SEE PAGE 3-7)
J3004 DV IN/OUT
CN001
IRIS METER
IRIS DRIVE +,-
IRIS HALL +,-
IC202 IC203 (4-27) IRIS DRIVE IRIS HALL AMP
IRIS PWM
I HALL AD
IC801 (4-29) EEPROM
IC302 (4-36) CHARACTER GENERATOR
IR FSC
AFCK(IC903)
SPCK(IC751)
OSD CS OSD SO OSD SCK
PANEL G
PANEL R
PANEL B
EVF G
EVF R
EVF B
FOCUS RESET SENSOR
FOCUS MOTOR
FC A,B FC XA,XB
ZM A,B ZM XA,XB
IC204 (4-28) FOCUS MOTOR DRIVE ZOOM MOTOR DRIVE
EN0,DIR 0A,DIR 0B
EN1,DIR 1A,DIR 1B
ZOOM MOTOR
ZOOM RESET SENSOR
FC RST
ZM RST
NIGHT SHOT
JK-188 BOARD (2/3)
IC1301 (4-50) (TAKO) LINE OUT LINE IN AGC ACC
J3001 S VIDEO
IR V
IR L
IR R
IC1001 (4-64) (XYZ) AUDIO I/O
J3003 AUDIO/VIDEO
J3002 HEADPHONE
IC903 (4-48) (ALIGN) A/D CONV.
AFCK
EXCEPT AEP/UK MODEL
VSP SO,SCK
IC1002 (4-64) (ADC&DAC) D/A CONV. A/D CONV.
DATA FROM SFD
DATA TO SFD
SFD BCK
SP+,-
HI SO,SI SCK
JK-188 BOARD(1/3)
IC3051 (4-89) YAW/PITCH SENSOR AMP
SE3052 YAW SENSOR
SE3051 PITCH SENSOR
IC802 (4-29) CAMERA CONTROL
MF A,B
X801 20MHz
CAM SO,SI,SCK
AD SO,AD SCK
ZOOM AD
YAW AD
PITCH AD
SE-94 BOARD
MANUAL FOCUS SENSOR
CN2051
TO OVERALL BLOCK DIAGRAM (3/3) (SEE PAGE 3-10)
HI SO,SI,SCK
SHOE MIC L
SP+,-
ZOOM AD
OSD CS,SO,SCK
PANEL R,G,B,EVF R,G,B,HD,VD
IR V,IR L,IR R
LANC SIG
MIC L
MIC R
CN2001
IC2002 (4-105) MIC AMP
J2001 MIC
J2002 LANC
LANC SIG
CN2701
MA-385 BOARD(1/2)
16

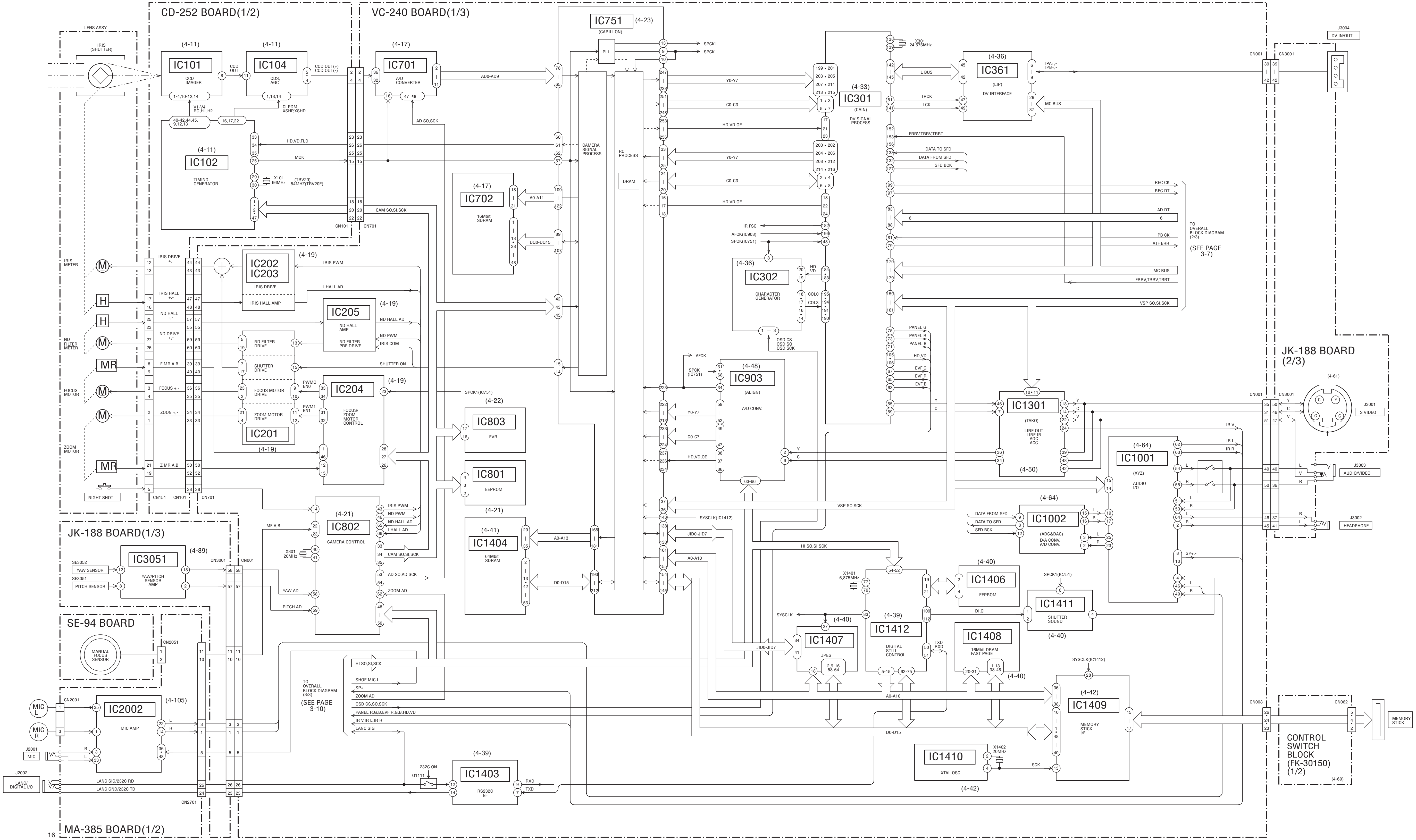
3-2. OVERALL BLOCK DIAGRAM (1/3) (DCR-TRV11/TRV11E)

( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.


FP-219 (FLEXIBLE)(1/2)
VC-241 BOARD(1/3)
LENS ASSY
IRIS (SHUTTER)
IC3000 CCD IMAGER (4-13)
IC701 (GCAM3) S/H,AGC A/D CONV. (4-25)
IC702 TIMING GENERATOR (4-25)
IC751 (BIRDS+) CAMERA PROCESS, FOCUS/ZOOM CONTROL, EVR (4-31)
IC1406 (SHIORI) DIGITAL STILL PROCESS (4-46)
IC301 (CAIN) DV SIGNAL PROCESS (4-33)
IC361 (LIP) DV INTERFACE (4-36)
IC302 CHARACTER GENERATOR (4-36)
IC202 IC203 IRIS DRIVE IRIS HALL AMP (4-27)
IC801 EEPROM (4-29)
IC201 SHUTTER DRIVE (4-27)
FOCUS MOTOR DRIVE
IC204 ZOOM MOTOR DRIVE (4-28)
IC752 16Mbit SDRAM (4-32)
IC802 CAMERA CONTROL (4-29)
IC903 (ALIGN) A/D CONV. (4-48) EXCEPT AEP/UK MODEL
IC1301 (TAKO) LINE OUT LINE IN AGC ACC (4-50)
IC1001 (XYZ) AUDIO I/O (4-64)
IC1002 (ADC&DAC) D/A CONV. A/D CONV. (4-64)
IC1405 16Mbit SDRAM (4-45)
IC1407 4Mbit FLASH (4-45)
IC1404 (KATHMANDU) DIGITAL STILL CONTROL (4-44)
IC1403 RS232C I/F (4-39)
X701 36MHz
X801 20MHz
X301 24.576MHz
X1401 25.8048MHz
IRIS METER
FOCUS RESET SENSOR
FOCUS MOTOR
ZOOM MOTOR
ZOOM RESET SENSOR
NIGHT SHOT
JK-188 BOARD(1/3)
IC3051 YAW/PITCH SENSOR AMP (4-89)
SE3052 YAW SENSOR
SE3051 PITCH SENSOR
SE-94 BOARD
MANUAL FOCUS SENSOR
MIC L
MIC R
J2001 MIC
J2002 LANC/DIGITAL I/O
IC2002 MIC AMP (4-105)
MA-385 BOARD(1/2)
TO OVERALL BLOCK DIAGRAM (3/3) (SEE PAGE 3-10)
TO OVERALL BLOCK DIAGRAM (2/3) (SEE PAGE 3-7)
JK-188 BOARD (2/3)
J3004 DV IN/OUT
J3001 S VIDEO
J3003 AUDIO/VIDEO
J3002 HEADPHONE
CONTROL SWITCH BLOCK (FK-30150) (1/2) (SEE PAGE 4-91)
MEMORY STICK
CN3001
CN701
CN3000
CN001
CN2051
CN2001
CN2701
CN008
CN062
Q1111 232C ON
HI SO,SI SCK
KASYA ON
MS DIO,MS SCLK,MS BS
A1-A19
D0-D15
16

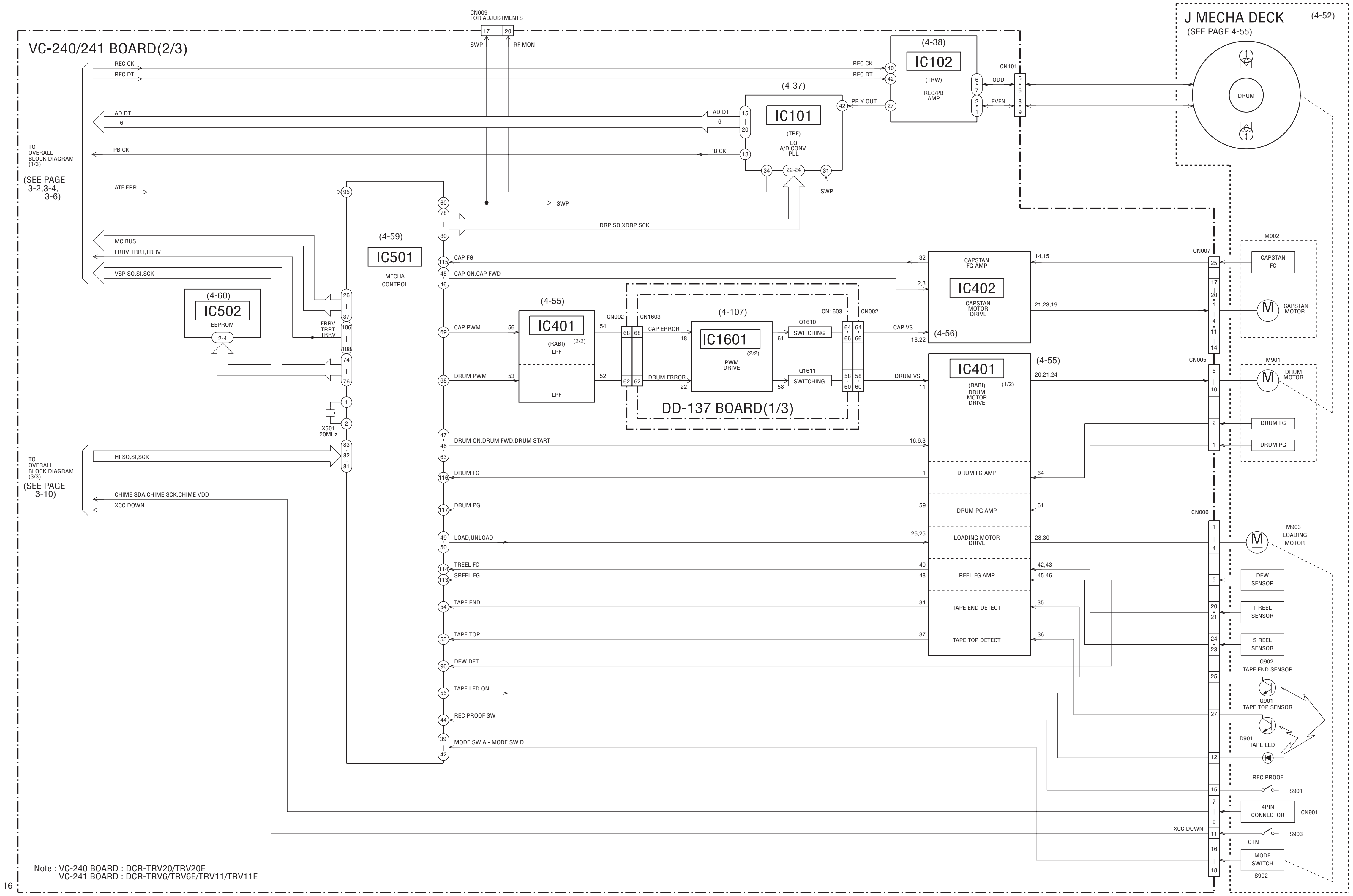
3-3. OVERALL BLOCK DIAGRAM (1/3) (DCR-TRV20/TRV20E)

( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.


CD-252 BOARD(1/2)
VC-240 BOARD(1/3)
LENS ASSY
IRIS (SHUTTER)
(4-11) IC101 CCD IMAGER
(4-11) IC104 CDS, AGC
CCD OUT
CCD OUT(+) CCD OUT(-)
(4-17) IC701 A/D CONVERTER
AD0-AD9
AD SO,SCK
V1-V4 RG,H1,H2
CLPDM, XSHP,XSHD
(4-11) IC102 TIMING GENERATOR
HD,VD,FLD
MCK
X101 66MHz
(TRV20) 54MHZ(TRV20E)
CAM SO,SI,SCK
CN101
CN701
IC751 (4-23) (CARILLON)
PLL
CAMERA SIGNAL PROCESS
RC PROCESS
DRAM
SPCK1
SPCK
(4-17) IC702 16Mbit SDRAM
A0-A11
D00-D015
Y0-Y7
C0-C3
HD,VD OE
HD,VD,OE
IR FSC
AFCK(IC903)
SPCK(IC751)
(4-33) IC301 (CAIN) DV SIGNAL PROCESS
X301 24.576MHz
(4-36) IC361 (LIP) DV INTERFACE
L BUS
TRCK
LCK
MC BUS
TPA+,- TPB+,-
FRRV,TRRV,TRRT
DATA TO SFD
DATA FROM SFD
SFD BCK
REC CK
REC DT
AD DT
PB CK
ATF ERR
TO OVERALL BLOCK DIAGRAM (2/3)
(SEE PAGE 3-7)
MC BUS
FRRV,TRRV,TRRT
VSP SO,SI,SCK
(4-36) IC302 CHARACTER GENERATOR
COL0 COL3
OSD CS OSD SO OSD SCK
PANEL G
PANEL R
PANEL B
HD,VD
EVF G
EVF R
EVF B
J3004 DV IN/OUT
CN001
CN3001
IRIS METER
ND FILTER METER
FOCUS MOTOR
ZOOM MOTOR
IRIS DRIVE +,-
IRIS HALL +,-
ND HALL +,-
ND DRIVE +,-
F MR A,B
FOCUS +,-
ZOOM +,-
Z MR A,B
NIGHT SHOT
CN151
(4-19) IC202 IC203 IRIS DRIVE IRIS HALL AMP
IRIS PWM
I HALL AD
(4-19) IC205 ND HALL AMP ND FILTER PRE DRIVE
ND HALL AD
ND PWM
IRIS COM
ND FILTER DRIVE
SHUTTER DRIVE
SHUTTER ON
FOCUS MOTOR DRIVE
ZOOM MOTOR DRIVE
(4-19) IC204 FOCUS/ ZOOM MOTOR CONTROL
PWM0 EN0
PWM1 EN1
IC201
SPCK1(IC751)
(4-22) IC803 EVR
IC801 EEPROM
(4-48) IC903 (ALIGN) A/D CONV.
AFCK
SPCK (IC751)
(4-21) IC802 CAMERA CONTROL
MF A,B
X801 20MHz
YAW AD
PITCH AD
IRIS PWM
ND PWM
ND HALL AD
I HALL AD
CAM SO,SI,SCK
AD SO,AD SCK
ZOOM AD
(4-21) (4-41) IC1404 64Mbit SDRAM
A0-A13
D0-D15
VSP SO,SCK
SYSCLK(IC1412)
JID0-JID7
A0-A10
HI SO,SI SCK
IC1301 (TAKO) LINE OUT LINE IN AGC ACC (4-50)
(4-64) IC1001 (XYZ) AUDIO I/O
IR V
IR L
IR R
(4-64) IC1002 (ADC&DAC) D/A CONV. A/D CONV.
DATA FROM SFD
DATA TO SFD
SFD BCK
SP+,-
JK-188 BOARD (2/3)
(4-61)
J3001 S VIDEO
J3003 AUDIO/VIDEO
J3002 HEADPHONE
JK-188 BOARD(1/3)
(4-89) IC3051 YAW/PITCH SENSOR AMP
SE3052 YAW SENSOR
SE3051 PITCH SENSOR
SE-94 BOARD
MANUAL FOCUS SENSOR
CN2051
MIC L
MIC R
CN2001
(4-105) IC2002 MIC AMP
J2001 MIC
J2002 LANC/ DIGITAL I/O
LANC SIG/232C RD
LANC GND/232C TD
CN2701
MA-385 BOARD(1/2)
16
TO OVERALL BLOCK DIAGRAM (3/3)
(SEE PAGE 3-10)
HI SO,SI,SCK
SHOE MIC L
SP+,-
ZOOM AD
OSD CS,SO,SCK
PANEL R,G,B,EVF R,G,B,HD,VD
IR V,IR L,IR R
LANC SIG
232C ON
Q1111
(4-39) IC1403 RS232C I/F
RXD
TXD
(4-40) IC1406 EEPROM
(4-40) IC1411 SHUTTER SOUND
SPCK1(IC751)
DI,CI
X1401 6.875MHz
(4-39) IC1412 DIGITAL STILL CONTROL
TXD RXD
SYSCLK
(4-40) IC1407 JPEG
IC1408 16Mbit DRAM FAST PAGE (4-40)
JID0-JID7
A0-A10
D0-D15
SYSCLK(IC1412)
(4-42) IC1409 MEMORY STICK I/F
IC1410 XTAL OSC (4-42)
X1402 20MHz
SCK
CN008
CN062
MEMORY STICK
CONTROL SWITCH BLOCK (FK-30150) (1/2)
(4-69)

3-4. OVERALL BLOCK DIAGRAM (2/3)

( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.


VC-240/241 BOARD(2/3)
CN009 FOR ADJUSTMENTS
17
20
SWP
RF MON
REC CK
REC DT
AD DT
6
PB CK
TO OVERALL BLOCK DIAGRAM (1/3)
(SEE PAGE 3-2,3-4, 3-6)
ATF ERR
MC BUS
FRRV TRRT,TRRV
VSP SO,SI,SCK
(4-60)
IC502
EEPROM
2-4
FRRV
TRRT
TRRV
(4-59)
IC501
MECHA CONTROL
X501 20MHz
TO OVERALL BLOCK DIAGRAM (3/3)
(SEE PAGE 3-10)
HI SO,SI,SCK
CHIME SDA,CHIME SCK,CHIME VDD
XCC DOWN
SWP
DRP SO,XDRP SCK
CAP FG
CAP ON,CAP FWD
CAP PWM
DRUM PWM
DRUM ON,DRUM FWD,DRUM START
DRUM FG
DRUM PG
LOAD,UNLOAD
TREEL FG
SREEL FG
TAPE END
TAPE TOP
DEW DET
TAPE LED ON
REC PROOF SW
MODE SW A - MODE SW D
(4-38)
IC102
(TRW)
REC/PB AMP
ODD
EVEN
CN101
(4-37)
IC101
(TRF)
EQ A/D CONV. PLL
PB Y OUT
SWP
(4-55)
IC401
(RABI)
LPF
(2/2)
LPF
CN002
CN1603
CAP ERROR
DRUM ERROR
(4-107)
IC1601
PWM DRIVE
(2/2)
Q1610
SWITCHING
Q1611
SWITCHING
CN1603
CN002
DD-137 BOARD(1/3)
CAP VS
DRUM VS
(4-56)
IC402
CAPSTAN FG AMP
CAPSTAN MOTOR DRIVE
(4-55)
IC401
(RABI)
(1/2)
DRUM MOTOR DRIVE
DRUM FG AMP
DRUM PG AMP
LOADING MOTOR DRIVE
REEL FG AMP
TAPE END DETECT
TAPE TOP DETECT
J MECHA DECK
(4-52)
(SEE PAGE 4-55)
DRUM
CN007
M902
CAPSTAN FG
CAPSTAN MOTOR
CN005
M901
DRUM MOTOR
DRUM FG
DRUM PG
CN006
M903
LOADING MOTOR
DEW SENSOR
T REEL SENSOR
S REEL SENSOR
Q902 TAPE END SENSOR
Q901 TAPE TOP SENSOR
D901 TAPE LED
REC PROOF
S901
4PIN CONNECTOR
CN901
S903
XCC DOWN
C IN
MODE SWITCH
S902
16

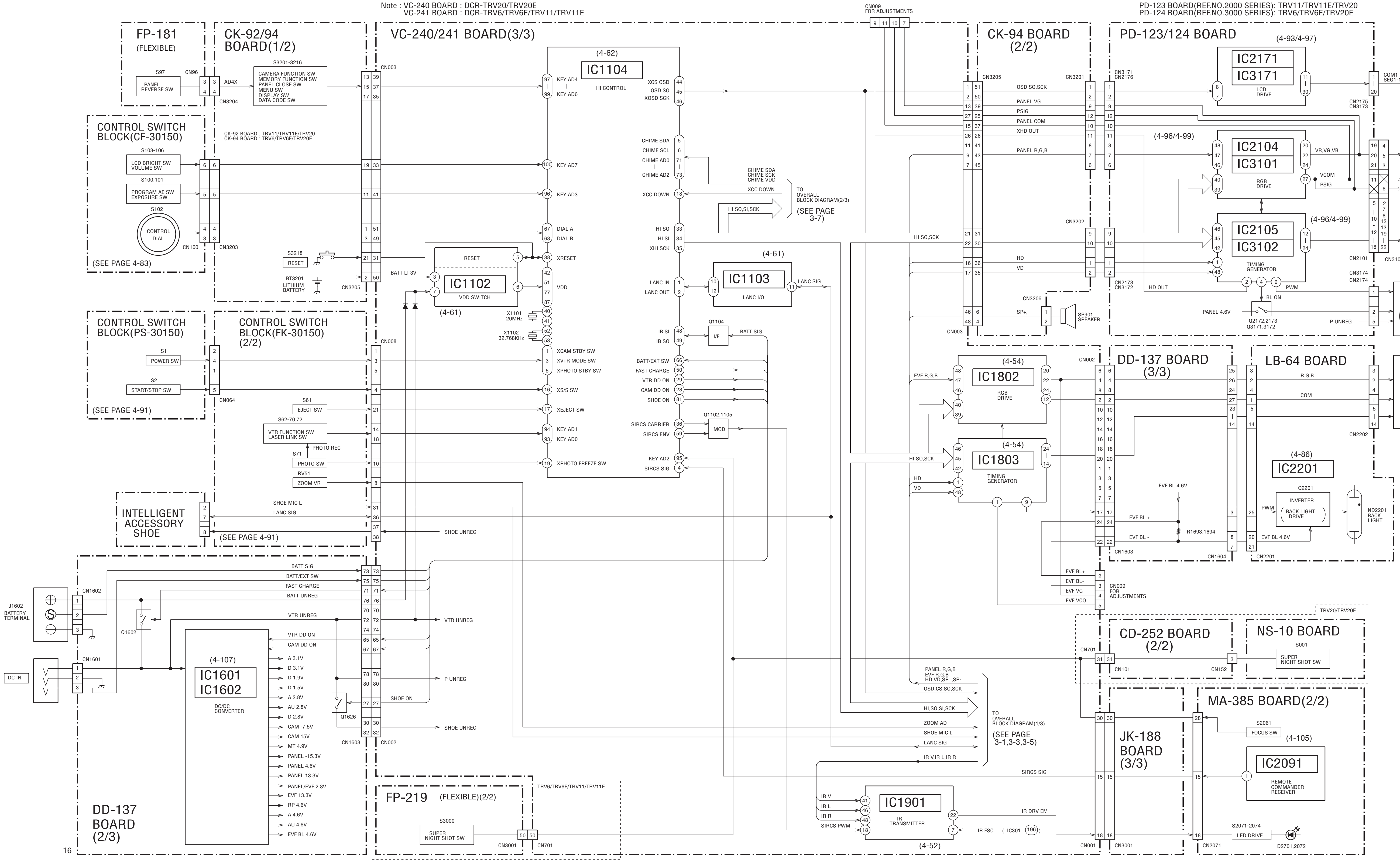
Note : VC-240 BOARD : DCR-TRV20/TRV20E
VC-241 BOARD : DCR-TRV6/TRV6E/TRV11/TRV11E

3-5. OVERALL BLOCK DIAGRAM (3/3)

( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.

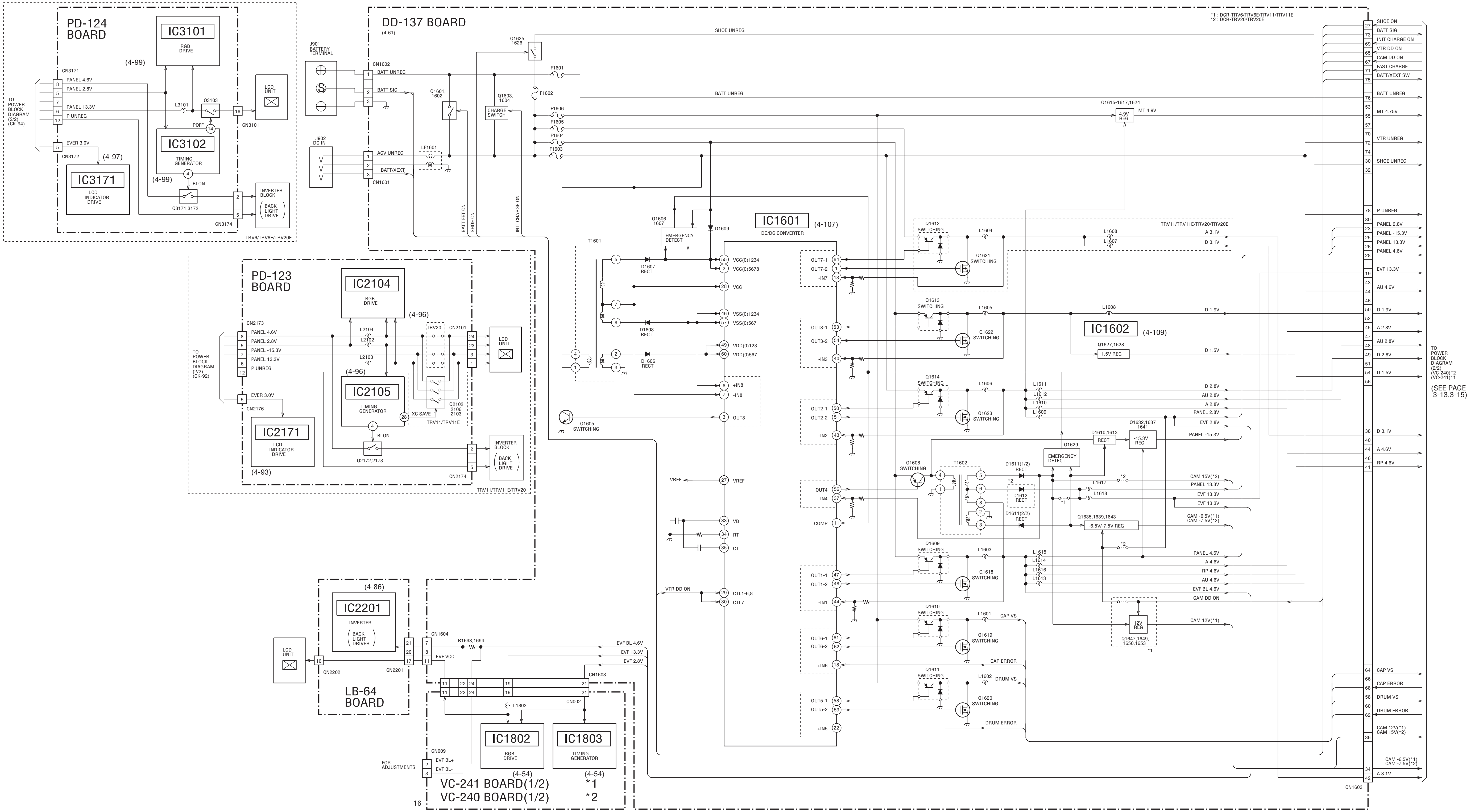
Note : VC-240 BOARD : DCR-TRV20/TRV20E
VC-241 BOARD : DCR-TRV6/TRV6E/TRV11/TRV11E

PD-123 BOARD(REF.NO.2000 SERIES): TRV11/TRV11E/TRV20
PD-124 BOARD(REF.NO.3000 SERIES): TRV6/TRV6E/TRV20E


FP-181 (FLEXIBLE)
S97 PANEL REVERSE SW
CN96
CK-92/94 BOARD(1/2)
S3201-3216
CAMERA FUNCTION SW
MEMORY FUNCTION SW
PANEL CLOSE SW
MENU SW
DISPLAY SW
DATA CODE SW
CN3204
CK-92 BOARD : TRV11/TRV11E/TRV20
CK-94 BOARD : TRV6/TRV6E/TRV20E
CONTROL SWITCH BLOCK(CF-30150)
S103-106 LCD BRIGHT SW VOLUME SW
S100,101 PROGRAM AE SW EXPOSURE SW
S102 CONTROL DIAL
CN100
CN3203
(SEE PAGE 4-83)
S3218 RESET
BT3201 LITHIUM BATTERY
CN3205
CONTROL SWITCH BLOCK(PS-30150)
S1 POWER SW
S2 START/STOP SW
(SEE PAGE 4-91)
CONTROL SWITCH BLOCK(FK-30150) (2/2)
CN064
S61 EJECT SW
S62-70,72 VTR FUNCTION SW LASER LINK SW
PHOTO REC
S71 PHOTO SW
RV51 ZOOM VR
INTELLIGENT ACCESSORY SHOE
SHOE MIC L
LANC SIG
(SEE PAGE 4-91)
SHOE UNREG
VC-240/241 BOARD(3/3)
CN003
CN008
(4-62)
IC1104
HI CONTROL
KEY AD4
KEY AD6
KEY AD7
KEY AD3
DIAL A
DIAL B
XRESET
VDD
XCS OSD
OSD SO
XOSD SCK
CHIME SDA
CHIME SCL
CHIME AD0
CHIME AD2
XCC DOWN
HI SO
HI SI
XHI SCK
LANC IN
LANC OUT
IB SI
IB SO
XCAM STBY SW
XVTR MODE SW
XPHOTO STBY SW
XS/S SW
XEJECT SW
KEY AD1
KEY AD0
XPHOTO FREEZE SW
BATT/EXT SW
FAST CHARGE
VTR DD ON
CAM DD ON
SHOE ON
SIRCS CARRIER
SIRCS ENV
KEY AD2
SIRCS SIG
BATT LI 3V
RESET
IC1102
VDD SWITCH
(4-61)
X1101 20MHz
X1102 32.768KHz
(4-61)
IC1103
LANC I/O
LANC SIG
Q1104 I/F
BATT SIG
Q1102,1105 MOD
CHIME SDA
CHIME SCK
CHIME VDD
XCC DOWN
HI SO,SI,SCK
TO OVERALL BLOCK DIAGRAM(2/3)
(SEE PAGE 3-7)
CN009 FOR ADJUSTMENTS
CK-94 BOARD (2/2)
CN3205
CN3201
OSD SO,SCK
PANEL VG
PSIG
PANEL COM
XHD OUT
PANEL R,G,B
CN3202
HI SO,SCK
HD
VD
CN3206
SP+,-
SP901 SPEAKER
CN003
PD-123/124 BOARD
(4-93/4-97)
IC2171
IC3171
LCD DRIVE
CN3171
CN2176
COM1-4
SEG1-16
LCD INDICATOR
CN2175
CN3173
(4-96/4-99)
IC2104
IC3101
RGB DRIVE
VR,VG,VB
VCOM
PSIG
LCD UNIT
(4-96/4-99)
IC2105
IC3102
TIMING GENERATOR
PWM
BL ON
CN2101
CN3101
CN3174
CN2174
CN2173
CN3172
HD OUT
PANEL 4.6V
Q2172,2173
Q3171,3172
P UNREG
INVERTER BLOCK
BACK LIGHT DRIVE
ND901 BACK LIGHT
CN002
EVF R,G,B
(4-54)
IC1802
RGB DRIVE
(4-54)
IC1803
TIMING GENERATOR
HI SO,SCK
HD
VD
DD-137 BOARD (3/3)
LB-64 BOARD
R,G,B
COM
LCD UNIT
CN2202
(4-86)
IC2201
EVF BL 4.6V
Q2201 INVERTER
PWM
BACK LIGHT DRIVE
ND2201 BACK LIGHT
EVF BL +
EVF BL -
R1693,1694
EVF BL 4.6V
CN1603
CN1604
CN2201
EVF BL+
EVF BL-
EVF VG
EVF VCO
CN009 FOR ADJUSTMENTS
TRV20/TRV20E
CD-252 BOARD (2/2)
NS-10 BOARD
S001 SUPER NIGHT SHOT SW
CN701
CN101
CN152
PANEL R,G,B
EVF R,G,B
HD,VD,SP+,SP-
OSD,CS,SO,SCK
HI,SO,SI,SCK
ZOOM AD
SHOE MIC L
LANC SIG
IR V,IR L,IR R
TO OVERALL BLOCK DIAGRAM(1/3)
(SEE PAGE 3-1,3-3,3-5)
SIRCS SIG
JK-188 BOARD (3/3)
MA-385 BOARD(2/2)
S2061 FOCUS SW
(4-105)
IC2091
REMOTE COMMANDER RECEIVER
S2071-2074 LED DRIVE
D2701,2072
CN001
CN3001
CN2071
IR DRV EM
IR FSC (IC301 196)
IC1901
IR TRANSMITTER
(4-52)
IR V
IR L
IR R
SIRCS PWM
FP-219 (FLEXIBLE)(2/2)
TRV6/TRV6E/TRV11/TRV11E
S3000 SUPER NIGHT SHOT SW
CN3001
CN701
J1602 BATTERY TERMINAL
CN1602
Q1602
DC IN
CN1601
(4-107)
IC1601
IC1602
DC/DC CONVERTER
BATT SIG
BATT/EXT SW
FAST CHARGE
BATT UNREG
VTR UNREG
VTR DD ON
CAM DD ON
A 3.1V
D 3.1V
D 1.9V
D 1.5V
A 2.8V
AU 2.8V
D 2.8V
CAM -7.5V
CAM 15V
MT 4.9V
PANEL -15.3V
PANEL 4.6V
PANEL 13.3V
PANEL/EVF 2.8V
EVF 13.3V
RP 4.6V
A 4.6V
AU 4.6V
EVF BL 4.6V
VTR UNREG
P UNREG
SHOE ON
SHOE UNREG
Q1626
CN1603
CN002
DD-137 BOARD (2/3)
16

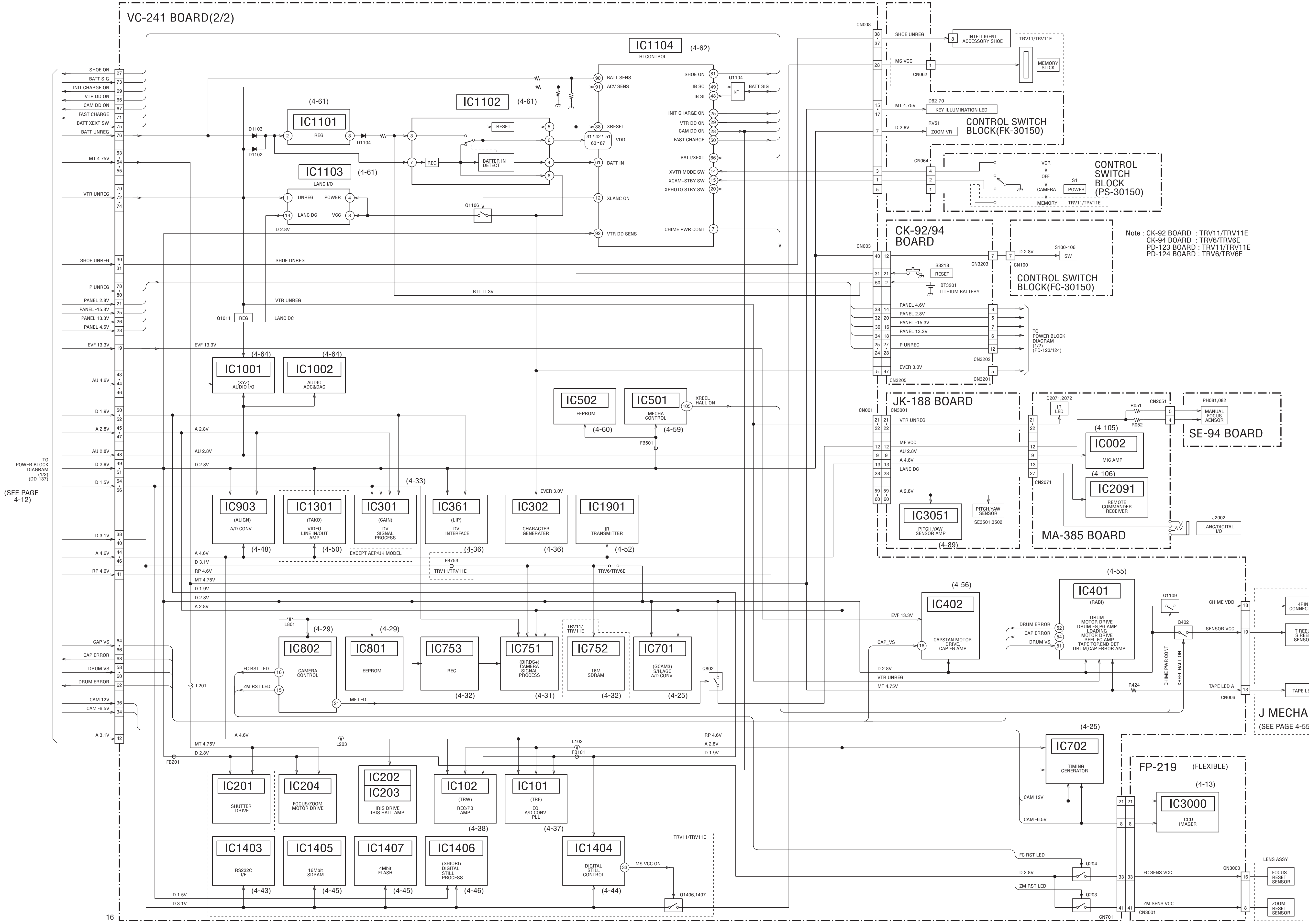
3-6. POWER BLOCK DIAGRAM (1/2)

( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.


PD-124 BOARD
IC3101
RGB DRIVE
(4-99)
CN3171
PANEL 4.6V
PANEL 2.8V
PANEL 13.3V
P UNREG
TO POWER BLOCK DIAGRAM (2/2) (CK-94)
L3101
Q3103
POFF
CN3101
LCD UNIT
IC3102
TIMING GENERATOR
EVER 3.0V
CN3172
(4-97)
IC3171
LCD INDICATOR DRIVE
BLON
Q3171,3172
INVERTER BLOCK
BACK LIGHT DRIVE
CN3174
TRV6/TRV6E/TRV20E
PD-123 BOARD
IC2104
RGB DRIVE
(4-96)
CN2173
PANEL 4.6V
PANEL 2.8V
PANEL -15.3V
PANEL 13.3V
P UNREG
TO POWER BLOCK DIAGRAM (2/2) (CK-92)
L2104
L2102
L2103
TRV20
CN2101
IC2105
TIMING GENERATOR
Q2102 2106 2103
XC SAVE
TRV11/TRV11E
EVER 3.0V
CN2176
IC2171
LCD INDICATOR DRIVE
(4-93)
Q2172,2173
CN2174
TRV11/TRV11E/TRV20
LB-64 BOARD
(4-86)
IC2201
INVERTER
BACK LIGHT DRIVER
CN2202
CN2201
DD-137 BOARD
(4-61)
J901 BATTERY TERMINAL
CN1602
BATT UNREG
BATT SIG
J902 DC IN
ACV UNREG
BATT/XEXT
CN1601
LF1601
Q1601, 1602
Q1603, 1604
CHARGE SWITCH
Q1625, 1626
SHOE UNREG
F1601
F1602
F1606
F1605
F1604
F1603
BATT FET ON
SHOE ON
INIT CHARGE ON
*1 : DCR-TRV6/TRV6E/TRV11/TRV11E
*2 : DCR-TRV20/TRV20E
Q1615-1617,1624
4.9V REG
MT 4.9V
Q1606, 1607
EMERGENCY DETECT
D1609
IC1601
(4-107)
DC/DC CONVERTER
T1601
D1607 RECT
D1608 RECT
D1606 RECT
Q1605 SWITCHING
VCC(0)1234
VCC(0)5678
VCC
VSS(0)1234
VSS(0)567
VDD(0)123
VDD(0)567
+IN8
-IN8
OUT8
VREF
VB
RT
CT
VTR DD ON
CTL1-6,8
CTL7
OUT7-1
OUT7-2
-IN7
OUT3-1
OUT3-2
-IN3
OUT2-1
OUT2-2
-IN2
OUT4
-IN4
COMP
OUT1-1
OUT1-2
-IN1
OUT6-1
OUT6-2
+IN6
OUT5-1
OUT5-2
+IN5
Q1612 SWITCHING
Q1621 SWITCHING
L1604
L1608
L1607
A 3.1V
D 3.1V
TRV11/TRV11E/TRV20/TRV20E
Q1613 SWITCHING
Q1622 SWITCHING
L1605
D 1.9V
IC1602
(4-109)
Q1627,1628
1.5V REG
D 1.5V
Q1614 SWITCHING
Q1623 SWITCHING
L1606
L1611
L1612
L1610
L1609
D 2.8V
AU 2.8V
A 2.8V
PANEL 2.8V
EVF 2.8V
D1610,1613
RECT
Q1632,1637 1641
-15.3V REG
PANEL -15.3V
Q1629
EMERGENCY DETECT
Q1608 SWITCHING
T1602
D1611(1/2) RECT
D1612 RECT
D1611(2/2) RECT
L1617
L1618
CAM 15V(*2)
PANEL 13.3V
EVF 13.3V
EVF 13.3V
Q1635,1639,1643
-6.5V/-7.5V REG
CAM -6.5V(*1)
CAM -7.5V(*2)
Q1609 SWITCHING
Q1618 SWITCHING
L1603
L1615
L1614
L1616
L1613
PANEL 4.6V
A 4.6V
RP 4.6V
AU 4.6V
EVF BL 4.6V
CAM DD ON
12V REG
Q1647,1649, 1650,1653
CAM 12V(*1)
Q1610 SWITCHING
Q1619 SWITCHING
L1601
CAP VS
CAP ERROR
Q1611 SWITCHING
Q1620 SWITCHING
L1602
DRUM VS
DRUM ERROR
SHOE ON
BATT SIG
INIT CHARGE ON
VTR DD ON
CAM DD ON
FAST CHARGE
BATT/XEXT SW
BATT UNREG
MT 4.75V
VTR UNREG
SHOE UNREG
P UNREG
PANEL 2.8V
PANEL -15.3V
PANEL 13.3V
PANEL 4.6V
EVF 13.3V
AU 4.6V
D 1.9V
A 2.8V
AU 2.8V
D 2.8V
D 1.5V
TO POWER BLOCK DIAGRAM (2/2) (VC-240)*2 (VC-241)*1
(SEE PAGE 3-13,3-15)
D 3.1V
A 4.6V
RP 4.6V
CAP VS
CAP ERROR
DRUM VS
DRUM ERROR
CAM 12V(*1)
CAM 15V(*2)
CAM -6.5V(*1)
CAM -7.5V(*2)
A 3.1V
CN1603
CN1604
R1693,1694
EVF BL 4.6V
EVF 13.3V
EVF 2.8V
EVF VCC
L1803
CN002
IC1802
RGB DRIVE
IC1803
TIMING GENERATOR
(4-54)
(4-54)
CN009
FOR ADJUSTMENTS
EVF BL+
EVF BL-
VC-241 BOARD(1/2) *1
VC-240 BOARD(1/2) *2
16

3-7. POWER BLOCK DIAGRAM (2/2) (DCR-TRV6/TRV6E/TRV11/TRV11E)

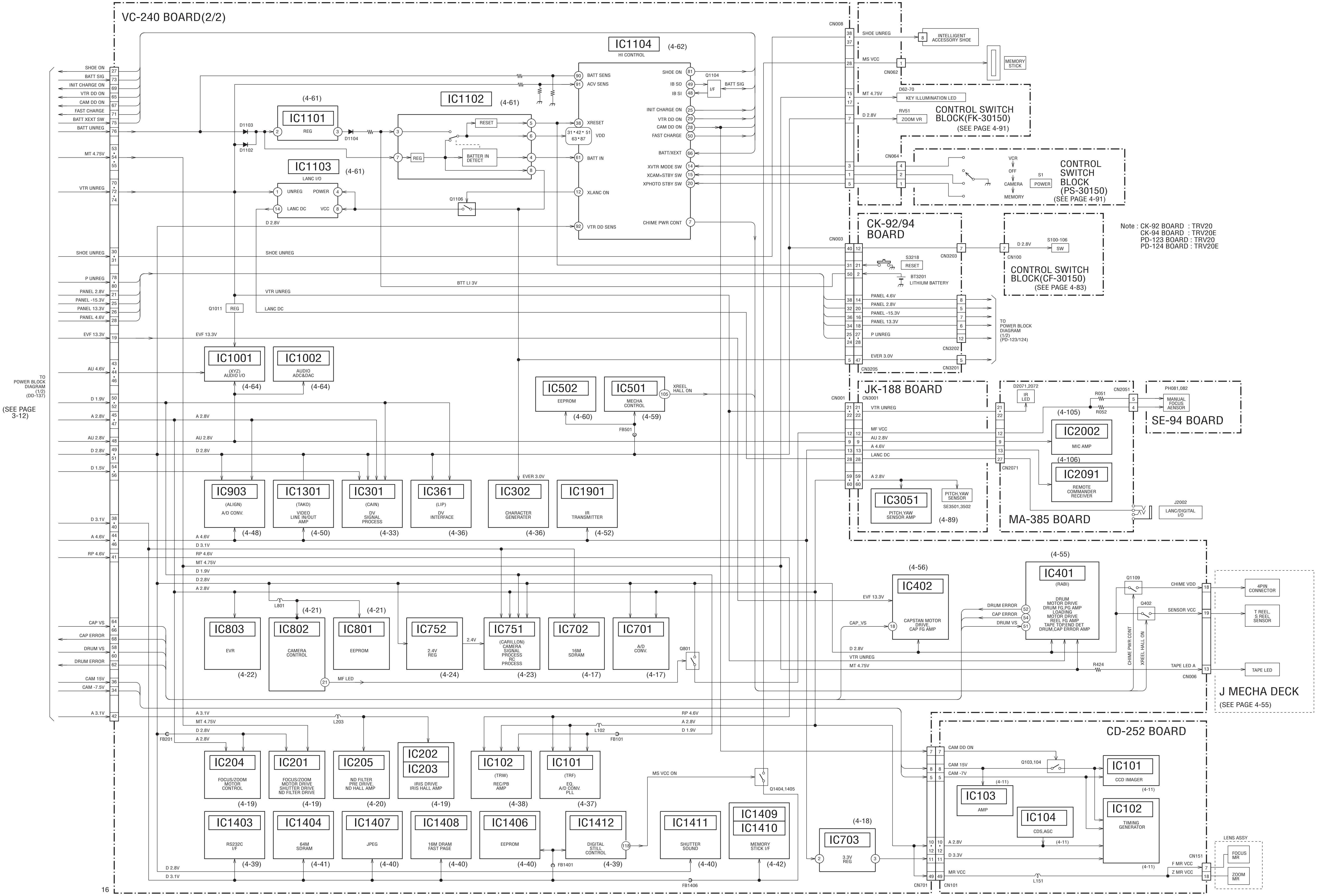
( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.



VC-241 BOARD(2/2)
SHOE ON
BATT SIG
INIT CHARGE ON
VTR DD ON
CAM DD ON
FAST CHARGE
BATT XEXT SW
BATT UNREG
MT 4.75V
VTR UNREG
SHOE UNREG
P UNREG
PANEL 2.8V
PANEL -15.3V
PANEL 13.3V
PANEL 4.6V
EVF 13.3V
AU 4.6V
D 1.9V
A 2.8V
AU 2.8V
D 2.8V
D 1.5V
TO POWER BLOCK DIAGRAM (1/2) (DD-137)
(SEE PAGE 4-12)
D 3.1V
A 4.6V
RP 4.6V
CAP VS
CAP ERROR
DRUM VS
DRUM ERROR
CAM 12V
CAM -6.5V
A 3.1V
16
IC1104 (4-62)
HI CONTROL
BATT SENS
ACV SENS
XRESET
VDD
BATT IN
XLANC ON
VTR DD SENS
SHOE ON
IB SO
IB SI
INIT CHARGE ON
VTR DD ON
CAM DD ON
FAST CHARGE
BATT/XEXT
XVTR MODE SW
XCAM+STBY SW
XPHOTO STBY SW
CHIME PWR CONT
Q1104
I/F
BATT SIG
IC1101 (4-61)
REG
D1103
D1102
D1104
IC1102 (4-61)
RESET
REG
BATTER IN DETECT
IC1103 (4-61)
LANC I/O
UNREG
POWER
LANC DC
VCC
Q1106
D 2.8V
SHOE UNREG
BTT LI 3V
VTR UNREG
LANC DC
Q1011
REG
EVF 13.3V
IC1001 (4-64)
(XYZ) AUDIO I/O
IC1002 (4-64)
AUDIO ADC&DAC
IC502
EEPROM
(4-60)
IC501
MECHA CONTROL
(4-59)
XREEL HALL ON
FB501
IC903
(ALIGN) A/D CONV.
(4-48)
IC1301
(TAKO) VIDEO LINE IN/OUT AMP
(4-50)
IC301
(CAIN) DV SIGNAL PROCESS
(4-33)
EXCEPT AEP/UK MODEL
IC361
(LIP) DV INTERFACE
(4-36)
IC302
CHARACTER GENERATER
(4-36)
EVER 3.0V
IC1901
IR TRANSMITTER
(4-52)
FB753
TRV11/TRV11E
TRV6/TRV6E
MT 4.75V
L801
IC802 (4-29)
CAMERA CONTROL
FC RST LED
ZM RST LED
MF LED
IC801 (4-29)
EEPROM
IC753
REG
(4-32)
IC751
(BIRDS+) CAMERA SIGNAL PROCESS
(4-31)
TRV11/TRV11E
IC752
16M SDRAM
(4-32)
IC701
(GCAM3) S/H,AGC A/D CONV.
(4-25)
Q802
L201
FB201
L203
L102
FB101
IC201
SHUTTER DRIVE
IC204
FOCUS/ZOOM MOTOR DRIVE
IC202
IC203
IRIS DRIVE IRIS HALL AMP
IC102
(TRW) REC/PB AMP
(4-38)
IC101
(TRF) EQ, A/D CONV. PLL
(4-37)
IC1403
RS232C I/F
(4-43)
IC1405
16Mbit SDRAM
(4-45)
IC1407
4Mbit FLASH
(4-45)
IC1406
(SHIORI) DIGITAL STILL PROCESS
(4-46)
IC1404
DIGITAL STILL CONTROL
(4-44)
MS VCC ON
Q1406,1407
TRV11/TRV11E
CN008
SHOE UNREG
INTELLIGENT ACCESSORY SHOE
TRV11/TRV11E
MS VCC
CN062
MEMORY STICK
MT 4.75V
D62-70
KEY ILLUMINATION LED
D 2.8V
RV51
ZOOM VR
CONTROL SWITCH BLOCK(FK-30150)
CN064
VCR
OFF
CAMERA
S1
POWER
MEMORY
CONTROL SWITCH BLOCK (PS-30150)
CK-92/94 BOARD
CN003
S3218
RESET
BT3201 LITHIUM BATTERY
CN3203
CN100
S100-106
SW
CONTROL SWITCH BLOCK(FC-30150)
Note : CK-92 BOARD : TRV11/TRV11E
CK-94 BOARD : TRV6/TRV6E
PD-123 BOARD : TRV11/TRV11E
PD-124 BOARD : TRV6/TRV6E
PANEL 4.6V
PANEL 2.8V
PANEL -15.3V
PANEL 13.3V
P UNREG
CN3202
EVER 3.0V
CN3205
CN3201
TO POWER BLOCK DIAGRAM (1/2) (PD-123/124)
JK-188 BOARD
CN001
CN3001
VTR UNREG
MF VCC
AU 2.8V
A 4.6V
LANC DC
A 2.8V
IC3051
PITCH,YAW SENSOR AMP
(4-89)
PITCH,YAW SENSOR
SE3501,3502
D2071,2072
IR LED
R051
R052
CN2051
PH081,082
MANUAL FOCUS AENSOR
SE-94 BOARD
IC002 (4-105)
MIC AMP
IC2091 (4-106)
REMOTE COMMANDER RECEIVER
CN2071
J2002
LANC/DIGITAL I/O
MA-385 BOARD
IC402 (4-56)
CAPSTAN MOTOR DRIVE, CAP FG AMP
EVF 13.3V
CAP_VS
IC401 (4-55)
(RABI)
DRUM MOTOR DRIVE DRUM FG,PG AMP LOADING MOTOR DRIVE REEL FG AMP TAPE TOP/END DET DRUM,CAP ERROR AMP
DRUM ERROR
CAP ERROR
DRUM VS
D 2.8V
VTR UNREG
MT 4.75V
Q1109
CHIME VDD
Q402
SENSOR VCC
CHIME PWR CONT
XREEL HALL ON
R424
TAPE LED A
CN006
4PIN CONNECTOR
T REEL S REEL SENSOR
TAPE LED
J MECHA DECK
(SEE PAGE 4-55)
A 4.6V
RP 4.6V
A 2.8V
D 1.9V
IC702 (4-25)
TIMING GENERATOR
CAM 12V
CAM -6.5V
FP-219 (FLEXIBLE)
IC3000 (4-13)
CCD IMAGER
FC RST LED
Q204
ZM RST LED
Q203
CN701
FC SENS VCC
ZM SENS VCC
CN3001
CN3000
LENS ASSY
FOCUS RESET SENSOR
ZOOM RESET SENSOR
D 1.5V
D 3.1V

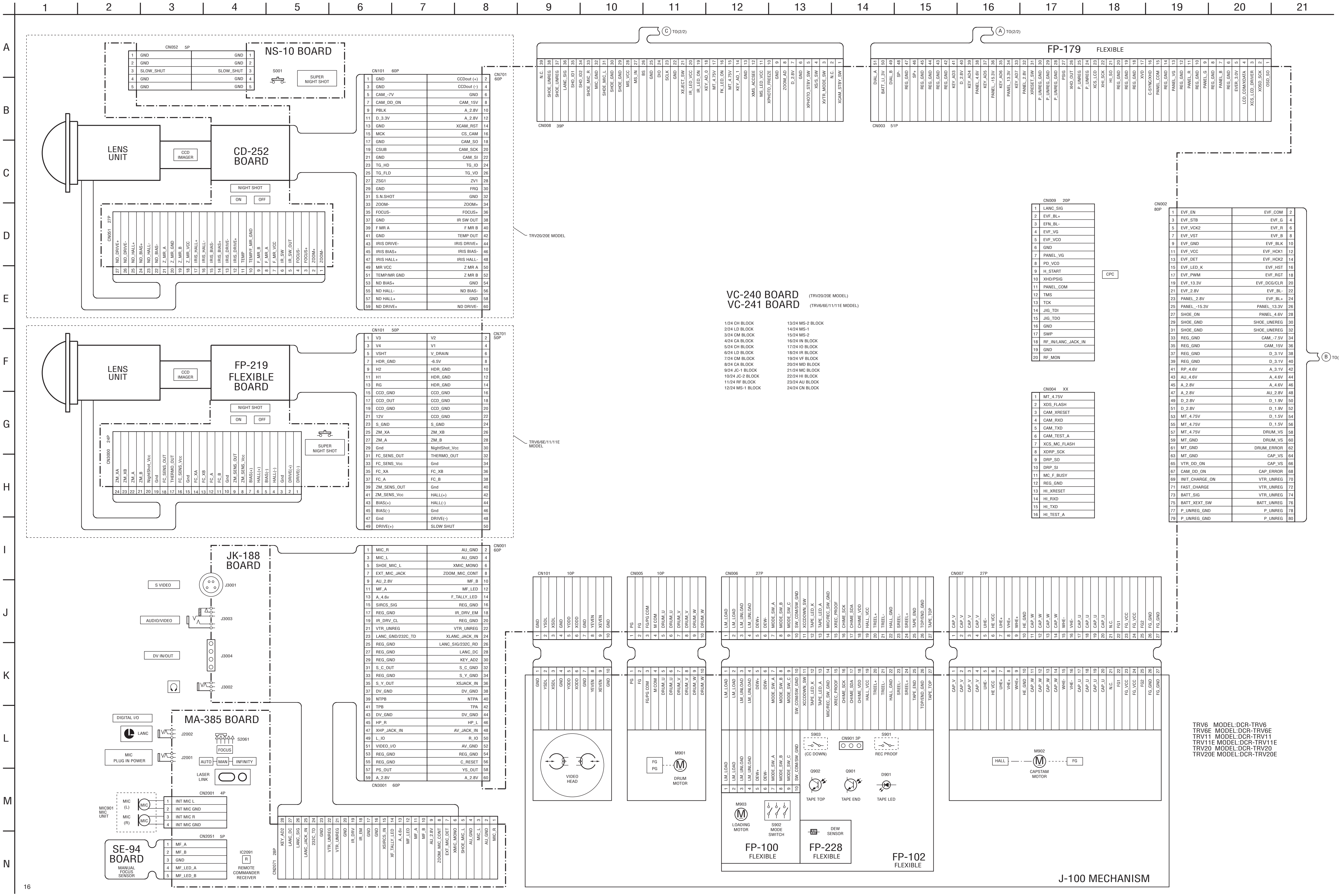
3-8. POWER BLOCK DIAGRAM (2/2) (DCR-TRV20/TRV20E)

( ) : Page No. shown in ( ) indicates the page to refer on the schematic diagram.


VC-240 BOARD(2/2)
IC1104 HI CONTROL (4-62)
IC1101 REG (4-61)
IC1102 (4-61)
IC1103 LANC I/O (4-61)
IC1001 (XYZ) AUDIO I/O (4-64)
IC1002 AUDIO ADC&DAC (4-64)
IC502 EEPROM (4-60)
IC501 MECHA CONTROL (4-59)
IC903 (ALIGN) A/D CONV. (4-48)
IC1301 (TAKO) VIDEO LINE IN/OUT AMP (4-50)
IC301 (CAIN) DV SIGNAL PROCESS (4-33)
IC361 (LIP) DV INTERFACE (4-36)
IC302 CHARACTER GENERATER (4-36)
IC1901 IR TRANSMITTER (4-52)
IC803 EVR (4-22)
IC802 CAMERA CONTROL (4-21)
IC801 EEPROM (4-21)
IC752 2.4V REG (4-24)
IC751 (CARILLON) CAMERA SIGNAL PROCESS RC PROCESS (4-23)
IC702 16M SDRAM (4-17)
IC701 A/D CONV. (4-17)
IC402 CAPSTAN MOTOR DRIVE, CAP FG AMP (4-56)
IC401 (RABI) DRUM MOTOR DRIVE DRUM FG,PG AMP LOADING MOTOR DRIVE REEL FG AMP TAPE TOP,END DET DRUM,CAP ERROR AMP (4-55)
IC204 FOCUS/ZOOM MOTOR CONTROL (4-19)
IC201 FOCUS/ZOOM MOTOR DRIVE SHUTTER DRIVE ND FILTER DRIVE (4-19)
IC205 ND FILTER PRE DRIVE ND HALL AMP (4-20)
IC202 IC203 IRIS DRIVE IRIS HALL AMP (4-19)
IC102 (TRW) REC/PB AMP (4-38)
IC101 (TRF) EQ. A/D CONV. PLL (4-37)
IC1403 RS232C I/F (4-39)
IC1404 64M SDRAM (4-41)
IC1407 JPEG (4-40)
IC1408 16M DRAM FAST PAGE (4-40)
IC1406 EEPROM (4-40)
IC1412 DIGITAL STILL CONTROL (4-39)
IC1411 SHUTTER SOUND (4-40)
IC1409 IC1410 MEMORY STICK I/F (4-42)
IC703 3.3V REG (4-18)
INTELLIGENT ACCESSORY SHOE
MEMORY STICK
CONTROL SWITCH BLOCK(FK-30150) (SEE PAGE 4-91)
CONTROL SWITCH BLOCK (PS-30150) (SEE PAGE 4-91)
CK-92/94 BOARD
CONTROL SWITCH BLOCK(CF-30150) (SEE PAGE 4-83)
Note : CK-92 BOARD : TRV20
CK-94 BOARD : TRV20E
PD-123 BOARD : TRV20
PD-124 BOARD : TRV20E
TO POWER BLOCK DIAGRAM (1/2) (PD-123/124)
JK-188 BOARD
IC3051 PITCH,YAW SENSOR AMP (4-89)
MA-385 BOARD
IC2002 MIC AMP (4-105)
IC2091 REMOTE COMMANDER RECEIVER (4-106)
SE-94 BOARD
J MECHA DECK (SEE PAGE 4-55)
CD-252 BOARD
IC101 CCD IMAGER (4-11)
IC102 TIMING GENERATOR (4-11)
IC103 AMP (4-11)
IC104 CDS,AGC (4-11)
LENS ASSY
TO POWER BLOCK DIAGRAM (1/2) (DD-137)
(SEE PAGE 3-12)

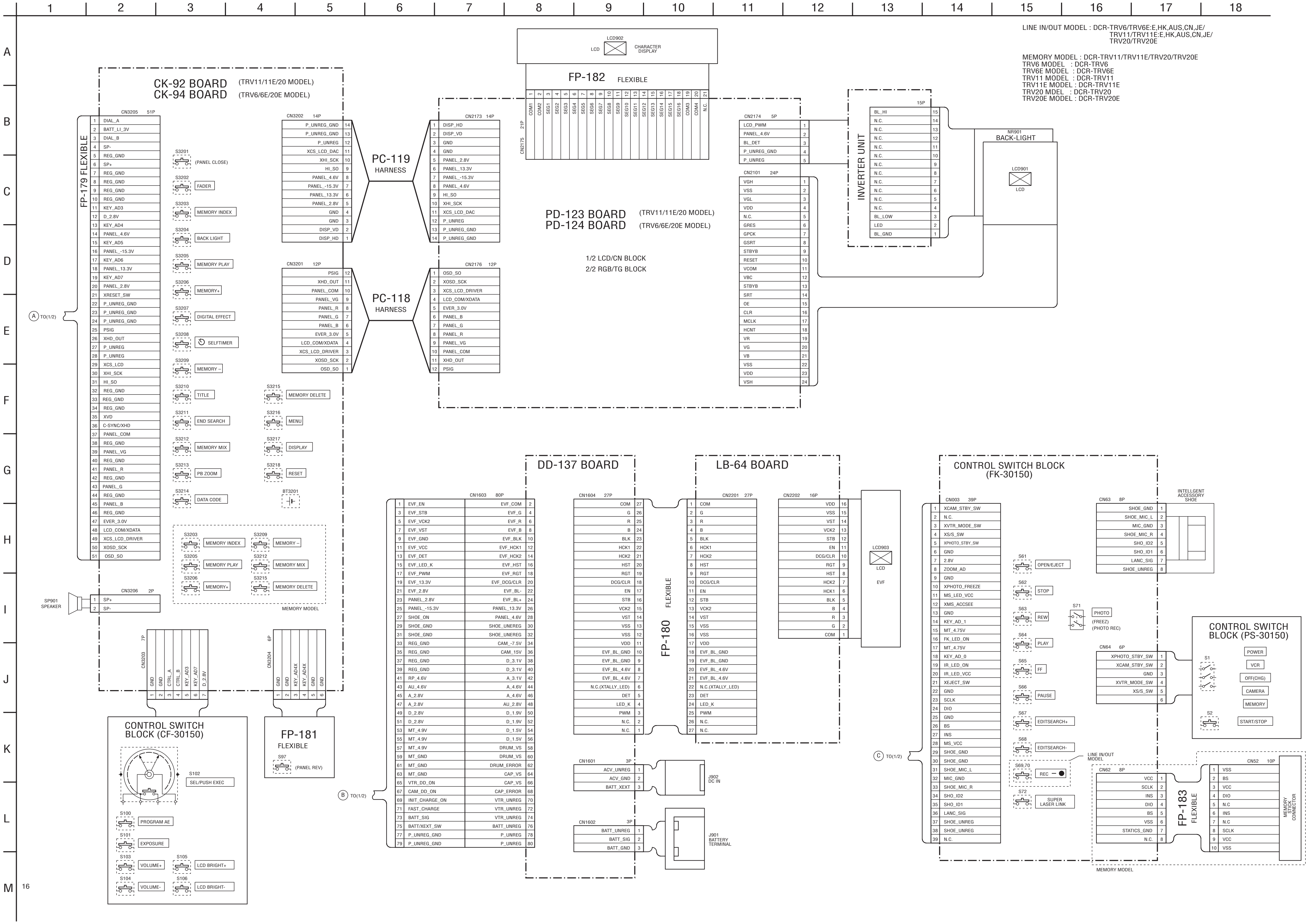
SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM-1


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
A B C D E F G H I J K L M N
NS-10 BOARD
CN052 5P
S001
SUPER NIGHT SHOT
LENS UNIT
CCD IMAGER
CD-252 BOARD
NIGHT SHOT
ON
OFF
CN051 21P
CN101 60P
CN701 60P
TRV20/20E MODEL
FP-219 FLEXIBLE BOARD
CN3000 24P
CN101 50P
CN701 50P
TRV6/6E/11/11E MODEL
JK-188 BOARD
S VIDEO
J3001
AUDIO/VIDEO
J3003
DV IN/OUT
J3004
J3002
CN001 60P
CN3001 60P
DIGITAL I/O
LANC
J2002
MIC PLUG IN POWER
J2001
MA-385 BOARD
S2061
FOCUS
AUTO
MAN
INFINITY
LASER LINK
CN2001 4P
MIC901 MIC UNIT
MIC (L)
MIC (R)
SE-94 BOARD
MANUAL FOCUS SENSOR
CN2051 5P
IC2091
REMOTE COMMANDER RECEIVER
CN2071 28P
C TO(2/2)
A TO(2/2)
B TO(2/2)
CN008 39P
FP-179 FLEXIBLE
CN003 51P
CN009 20P
CPC
CN004 XX
CN002 80P
VC-240 BOARD (TRV20/20E MODEL)
VC-241 BOARD (TRV6/6E/11/11E MODEL)
1/24 CH BLOCK
2/24 LD BLOCK
3/24 CM BLOCK
4/24 CA BLOCK
5/24 CH BLOCK
6/24 LD BLOCK
7/24 CM BLOCK
8/24 CA BLOCK
9/24 JC-1 BLOCK
10/24 JC-2 BLOCK
11/24 RF BLOCK
12/24 MS-1 BLOCK
13/24 MS-2 BLOCK
14/24 MS-1
15/24 MS-2
16/24 IN BLOCK
17/24 IO BLOCK
18/24 IR BLOCK
19/24 VF BLOCK
20/24 MD BLOCK
21/24 MC BLOCK
22/24 HI BLOCK
23/24 AU BLOCK
24/24 CN BLOCK
CN101 10P
CN005 10P
CN006 27P
CN007 27P
VIDEO HEAD
M901
DRUM MOTOR
S903
(CC DOWN)
CN901 3P
S901
REC PROOF
Q902
TAPE TOP
Q901
TAPE END
D901
TAPE LED
M903
LOADING MOTOR
S902
MODE SWITCH
DEW SENSOR
FP-100 FLEXIBLE
FP-228 FLEXIBLE
FP-102 FLEXIBLE
HALL
M902
CAPSTAN MOTOR
FG
J-100 MECHANISM
TRV6 MODEL:DCR-TRV6
TRV6E MODEL:DCR-TRV6E
TRV11 MODEL:DCR-TRV11
TRV11E MODEL:DCR-TRV11E
TRV20 MODEL:DCR-TRV20
TRV20E MODEL:DCR-TRV20E
16

FRAME SCHEMATIC DIAGRAM (1/2)

FRAME SCHEMATIC DIAGRAM-2


CK-92 BOARD (TRV11/11E/20 MODEL)
CK-94 BOARD (TRV6/6E/20E MODEL)
FP-179 FLEXIBLE
CN3205 51P
CN3202 14P
CN3201 12P
CN3206 2P
SP901 SPEAKER
PC-119 HARNESS
PC-118 HARNESS
LCD902 LCD CHARACTER DISPLAY
FP-182 FLEXIBLE
CN2175 21P
CN2173 14P
CN2176 12P
PD-123 BOARD (TRV11/11E/20 MODEL)
PD-124 BOARD (TRV6/6E/20E MODEL)
1/2 LCD/CN BLOCK
2/2 RGB/TG BLOCK
CN2174 5P
CN2101 24P
INVERTER UNIT
15P
NR901 BACK-LIGHT
LCD901 LCD
S3201 (PANEL CLOSE)
S3202 FADER
S3203 MEMORY INDEX
S3204 BACK LIGHT
S3205 MEMORY PLAY
S3206 MEMORY+
S3207 DIGITAL EFFECT
S3208 SELFTIMER
S3209 MEMORY –
S3210 TITLE
S3211 END SEARCH
S3212 MEMORY MIX
S3213 PB ZOOM
S3214 DATA CODE
S3215 MEMORY DELETE
S3216 MENU
S3217 DISPLAY
S3218 RESET
BT3201
MEMORY MODEL
CN3203 7P
CN3204 6P
CONTROL SWITCH BLOCK (CF-30150)
S102 SEL/PUSH EXEC
S100 PROGRAM AE
S101 EXPOSURE
S103 VOLUME+
S104 VOLUME-
S105 LCD BRIGHT+
S106 LCD BRIGHT-
FP-181 FLEXIBLE
S97 (PANEL REV)
A TO(1/2)
B TO(1/2)
C TO(1/2)
DD-137 BOARD
CN1603 80P
CN1604 27P
CN1601 3P
CN1602 3P
J902 DC IN
J901 BATTERY TERMINAL
FP-180 FLEXIBLE
LB-64 BOARD
CN2201 27P
CN2202 16P
LCD903 LCD EVF
CONTROL SWITCH BLOCK (FK-30150)
CN003 39P
CN63 8P
INTELLIGENT ACCESSORY SHOE
S61 OPEN/EJECT
S62 STOP
S63 REW
S64 PLAY
S65 FF
S66 PAUSE
S67 EDITSEARCH+
S68 EDITSEARCH-
S69,70 REC
S71 PHOTO (FREEZ) (PHOTO REC)
S72 SUPER LASER LINK
LINE IN/OUT MODEL
CN64 6P
CONTROL SWITCH BLOCK (PS-30150)
S1 POWER VCR OFF(CHG) CAMERA MEMORY
S2 START/STOP
CN62 8P
FP-183 FLEXIBLE
CN52 10P
MEMORY STICK CONNECTOR
MEMORY MODEL
16

LINE IN/OUT MODEL : DCR-TRV6/TRV6E:E,HK,AUS,CN,JE/
TRV11/TRV11E:E,HK,AUS,CN,JE/
TRV20/TRV20E

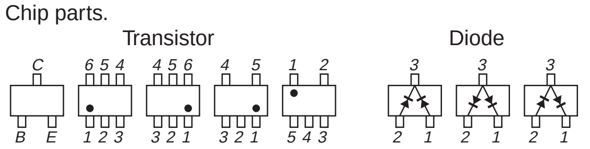
MEMORY MODEL : DCR-TRV11/TRV11E/TRV20/TRV20E
TRV6 MODEL : DCR-TRV6
TRV6E MODEL : DCR-TRV6E
TRV11 MODEL : DCR-TRV11
TRV11E MODEL : DCR-TRV11E
TRV20 MODEL : DCR-TRV20
TRV20E MODEL : DCR-TRV20E

4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR WIRING BOARDS AND SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

(For printed wiring boards)

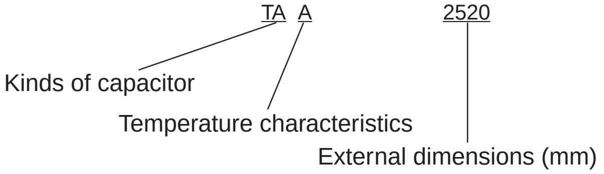
- ▨: Pattern from the side which enables seeing.
  (The other layers' patterns are not indicated.)
- Through hole is omitted.
- Circled numbers refer to waveforms.
- There are few cases that the part printed on diagram isn't mounted in this model.
- Chip parts.


Transistor
Diode
C
B E
6 5 4
1 2 3
4 5 6
3 2 1
4 5
3 2 1
1 2
5 4 3
3
2 1
3
2 1
3
2 1

(For schematic diagrams)

- All capacitors are in mF unless otherwise noted. pF : m mF. 50V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10W unless otherwise noted.
  kW=1000W, MW=1000kW.
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

Example	C541	L452
	22U	10UH
	TA A	2520


Kinds of capacitor
Temperature characteristics
External dimensions (mm)

- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.
  In such cases, the unused circuits may be indicated.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → $\overline{\text{EDIT}}$ PB/XREC → PB/$\overline{\text{REC}}$
- -▭- : non flammable resistor
- -∿- : fusible resistor
- ▭ : panel designation
- ━ : B+ Line *
- ╍ : B– Line *
- ⇨ : IN/OUT direction of (+,–) B LINE. *
- ▭ : adjustment for repair. *
- Circled numbers refer to waveforms. *

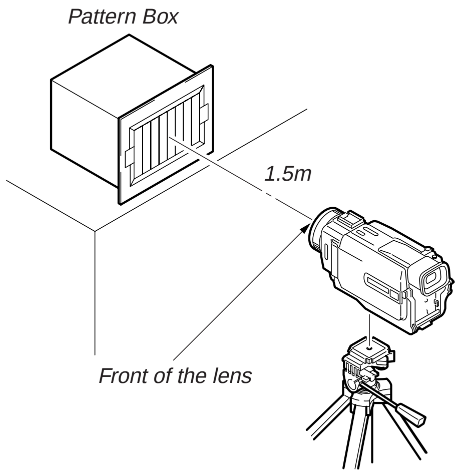
* Indicated by the color red.

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

(Measuring conditions voltage and waveform)

- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference waveforms. *
  (VOM of DC 10 MΩ input impedance is used.).
- Voltage values change depending upon input impedance of VOM used.) *

1. Connection


Pattern Box
1.5m
Front of the lens

2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

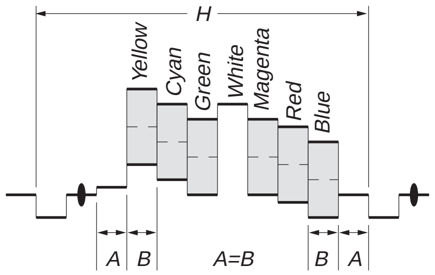

H
Yellow
Cyan
Green
White
Magenta
Red
Blue
A
B
A=B
B
A

Fig. a (Video output terminal output waveform)

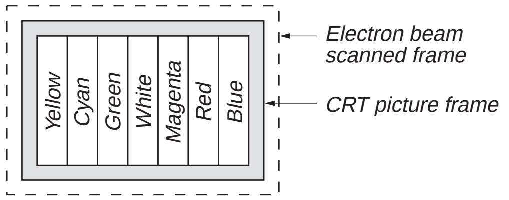
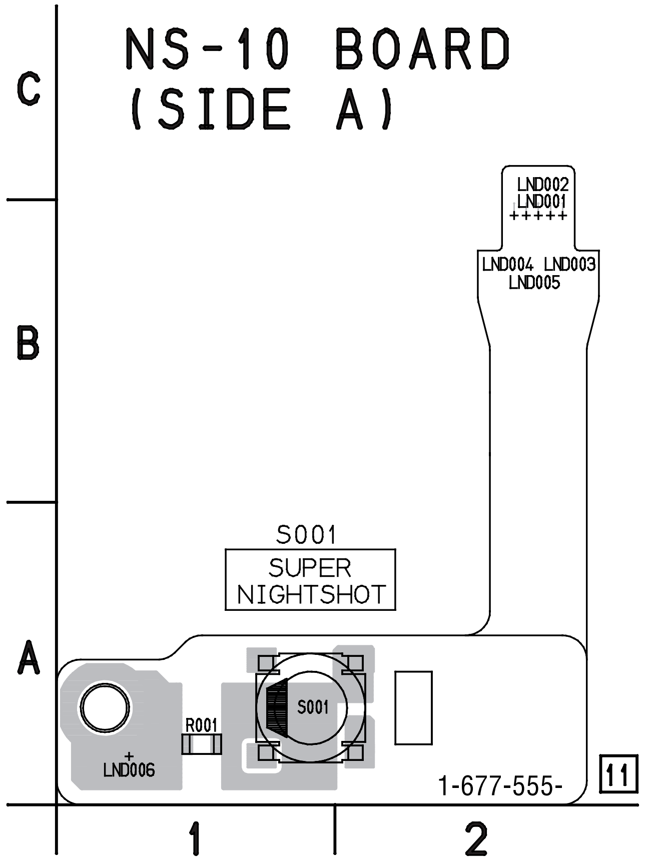

Yellow
Cyan
Green
White
Magenta
Red
Blue
Electron beam scanned frame
CRT picture frame

Fig.b (Picture on monitor TV)

When indicating parts by reference number, pleas include the board name.

NS-10 (SUPER NIGHTSHOT SW) PRINTED WIRING BOARD

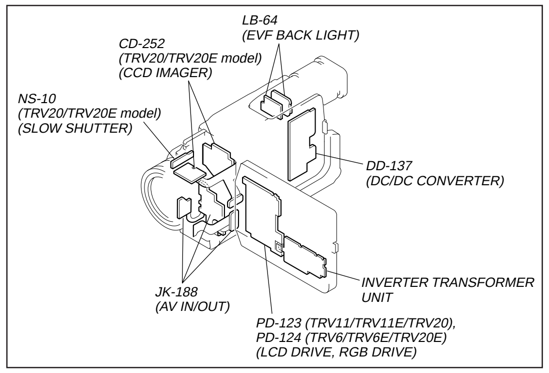
— Ref. No. NS-10 Board; 4,000 Series —


NS-10 BOARD
(SIDE A)
C
B
A
1
2
LND002
LND001
+++++
LND004 LND003
LND005
S001
SUPER
NIGHTSHOT
S001
R001
+
LND006
1-677-555-
11

For printed wiring board

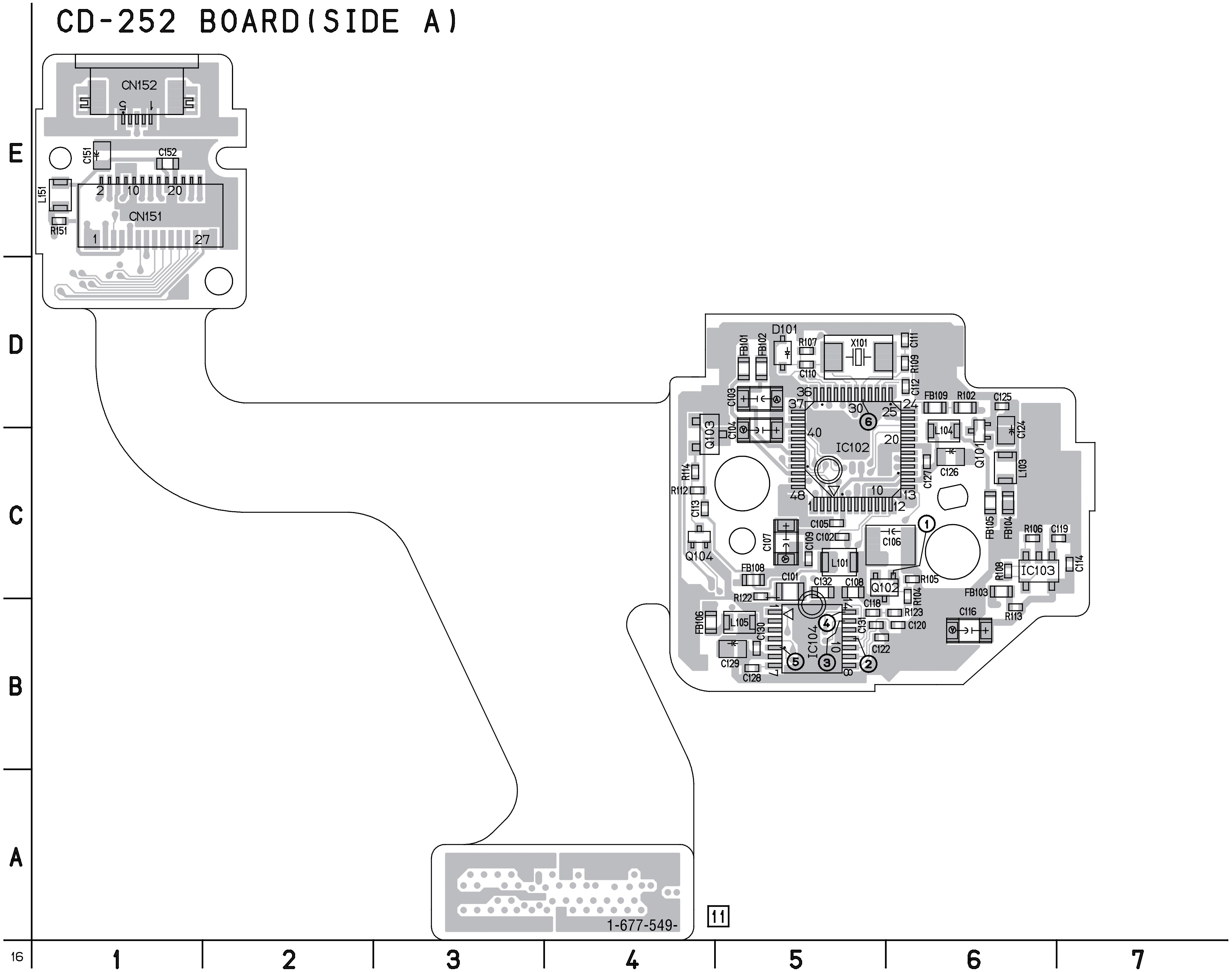
- Refer to page 4-125 for parts location.
- This board is four-layer print board. H5owever, the patterns of layers two to four have not been included in the diagram.

There are few cases that the part printed on this diagram isn't mounted in this model.


LB-64
(EVF BACK LIGHT)
CD-252
(TRV20/TRV20E model)
(CCD IMAGER)
NS-10
(TRV20/TRV20E model)
(SLOW SHUTTER)
DD-137
(DC/DC CONVERTER)
INVERTER TRANSFORMER
UNIT
JK-188
(AV IN/OUT)
PD-123 (TRV11/TRV11E/TRV20),
PD-124 (TRV6/TRV6E/TRV20E)
(LCD DRIVE, RGB DRIVE)

CD-252 (CCD IMAGER) PRINTED WIRING BOARD

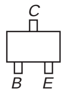
— Ref. No. CD-252 Board; 4,000 Series —


CD-252 BOARD(SIDE A)
E
D
C
B
A
16
1
2
3
4
5
6
7
CN152
5
1
C151
C152
L151
R151
2
10
20
CN151
1
27
D101
FB101
FB102
R107
X101
C111
C110
R109
C112
C103
36
37
30
25
24
6
FB109
R102
C125
Q103
C104
40
IC102
20
L104
C124
Q101
C126
C127
L103
R114
R112
C113
48
10
13
12
1
FB105
FB104
C105
C102
C106
R106
C119
C107
C109
Q104
L101
R108
IC103
C114
FB108
C101
C132
C108
Q102
R105
R122
C118
R104
FB103
R123
R113
C116
FB106
L105
C130
IC104
4
C131
C120
C122
C129
5
3
2
C128
1-677-549-
11

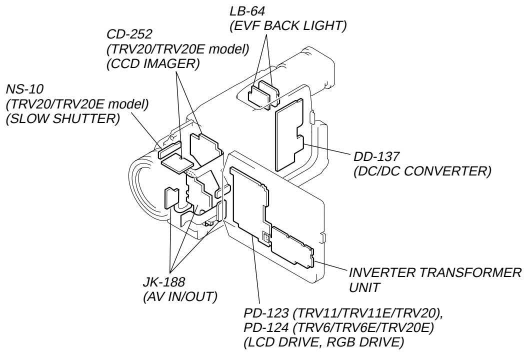
For printed wiring board

- Refer to page 4-125 for parts location.
- This board is four-layer print board. However, the patterns of layers two and three have not been included in the diagram.
- Chip parts

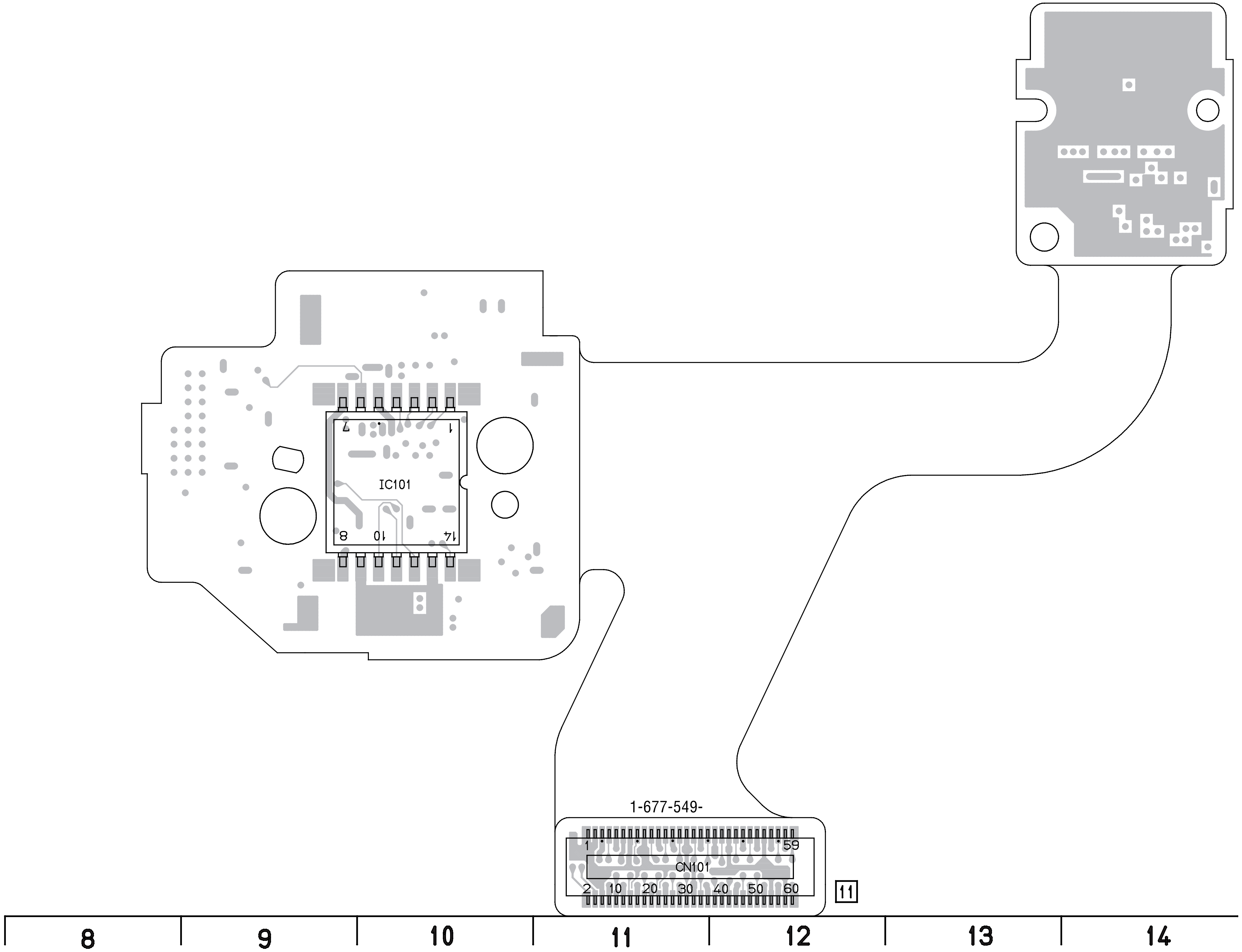
Transistor



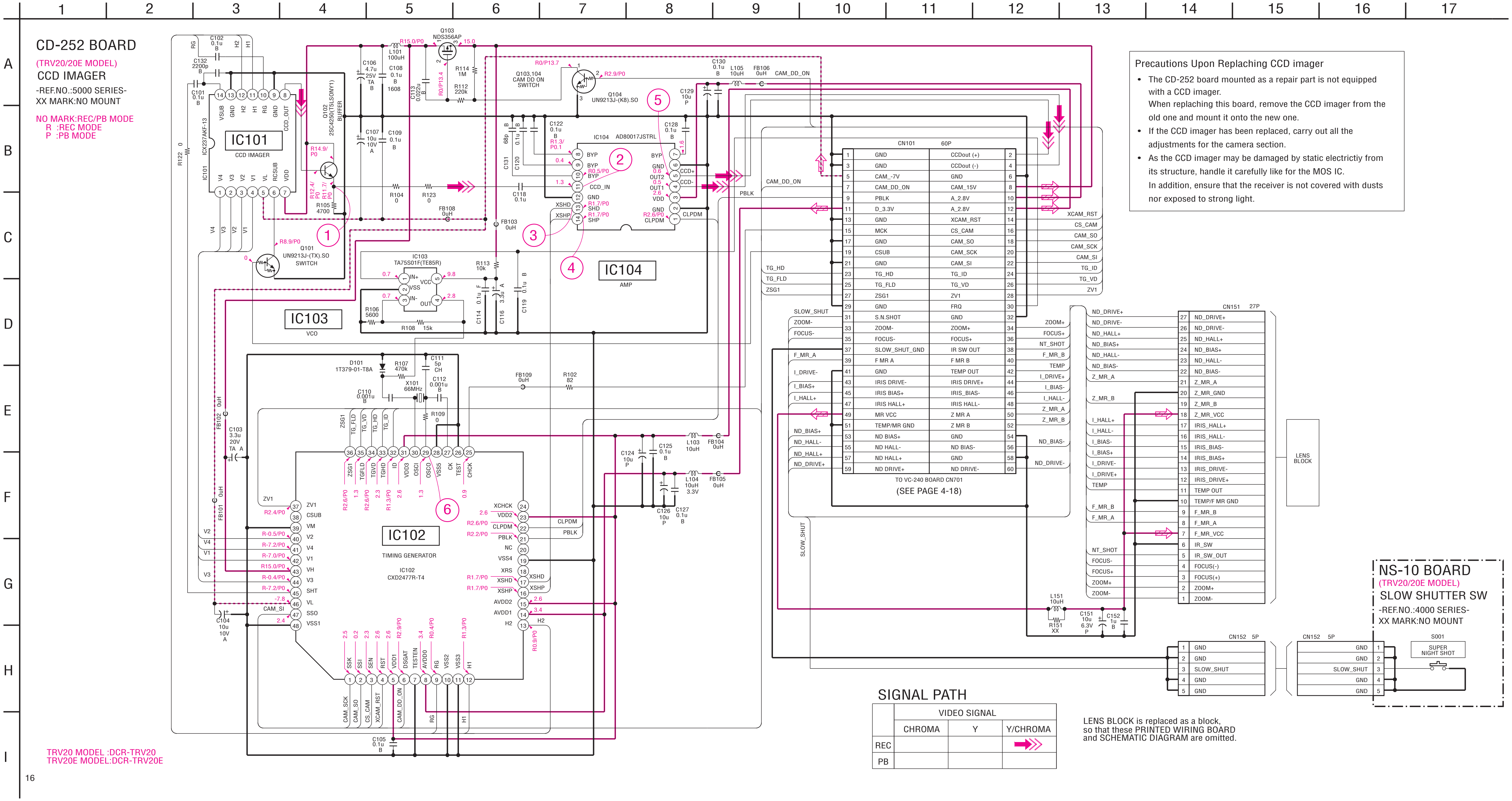
There are few cases that the part printed on this diagram isn’t mounted in this model.


LB-64
(EVF BACK LIGHT)
CD-252
(TRV20/TRV20E model)
(CCD IMAGER)
NS-10
(TRV20/TRV20E model)
(SLOW SHUTTER)
DD-137
(DC/DC CONVERTER)
INVERTER TRANSFORMER
UNIT
JK-188
(AV IN/OUT)
PD-123 (TRV11/TRV11E/TRV20),
PD-124 (TRV6/TRV6E/TRV20E)
(LCD DRIVE, RGB DRIVE)

CD-252 BOARD(SIDE B)


IC101
7
1
8
10
14
1-677-549-
CN101
1
59
2
10
20
30
40
50
60
11
8
9
10
11
12
13
14

For Schematic Diagram
- Refer to page 4-7 for CD-252 printed wiring board.
- Refer to page 4-6 for NS-10 printed wiring board.
- Refer to page 4-113 for waveforms.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
A B C D E F G H I
CD-252 BOARD
(TRV20/20E MODEL)
CCD IMAGER
-REF.NO.:5000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC101
CCD IMAGER
ICX237AKF-13
Q102 2SC4250(T5LSONY1) BUFFER
Q103 NDS356AP
Q103,104 CAM DD ON SWITCH
Q104 UN9213J-(K8).SO
Q101 UN9213J-(TX).SO SWITCH
IC104 AD80017JSTRL
IC104
AMP
IC103 TA75S01F(TE85R)
IC103
VCO
D101 1T379-01-T8A
X101 66MHz
IC102
TIMING GENERATOR
IC102 CXD2477R-T4
CN101 60P
TO VC-240 BOARD CN701
(SEE PAGE 4-18)
CN151 27P
LENS BLOCK
CN152 5P
NS-10 BOARD
(TRV20/20E MODEL)
SLOW SHUTTER SW
-REF.NO.:4000 SERIES-
XX MARK:NO MOUNT
S001 SUPER NIGHT SHOT
TRV20 MODEL :DCR-TRV20
TRV20E MODEL:DCR-TRV20E
16

Precautions Upon Replaching CCD imager

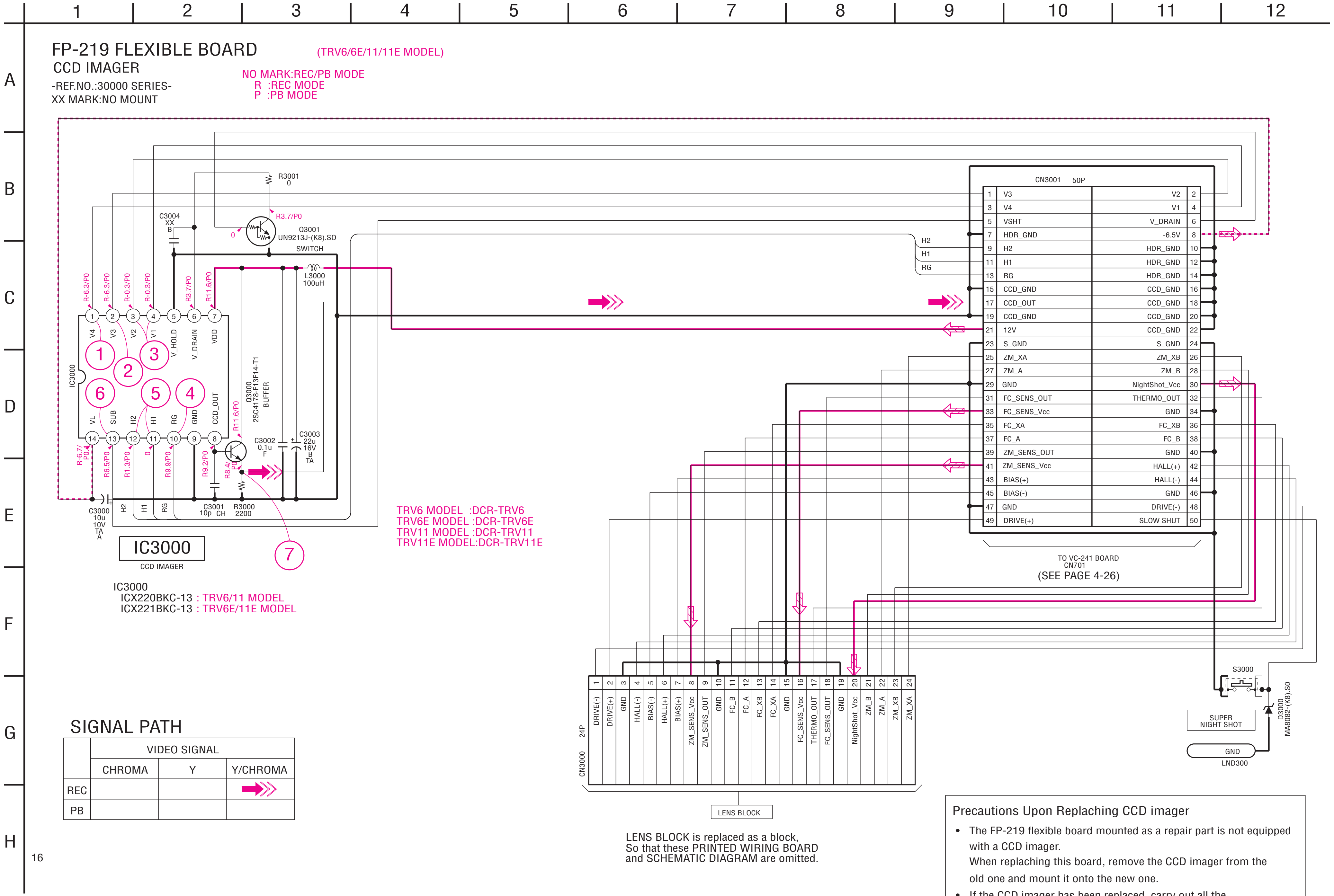
- The CD-252 board mounted as a repair part is not equipped with a CCD imager.
  When replaching this board, remove the CCD imager from the old one and mount it onto the new one.
- If the CCD imager has been replaced, carry out all the adjustments for the camera section.
- As the CCD imager may be damaged by static electrictiy from its structure, handle it carefully like for the MOS IC.
  In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.

SIGNAL PATH

	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC			⇛
PB			

LENS BLOCK is replaced as a block,
so that these PRINTED WIRING BOARD
and SCHEMATIC DIAGRAM are omitted.

For Schematic Diagram
- Refer to page 4-16 for printed wiring board.
- Refer to page 4-113 for waveforms.


1 2 3 4 5 6 7 8 9 10 11 12
A B C D E F G H
FP-219 FLEXIBLE BOARD
CCD IMAGER
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
(TRV6/6E/11/11E MODEL)
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
R3001 0
C3004 XX B
R3.7/P0
Q3001 UN9213J-(K8).SO SWITCH
L3000 100uH
IC3000
V4 V3 V2 V1 V_HOLD V_DRAIN VDD
VL SUB H2 H1 RG GND CCD_OUT
Q3000 2SC4178-F13F14-T1 BUFFER
C3002 0.1u F
C3003 22u 16V B TA
C3000 10u 10V TA A
C3001 10p CH
R3000 2200
IC3000
CCD IMAGER
CN3001 50P
V3 V2 V4 V1 VSHT V_DRAIN HDR_GND -6.5V H2 HDR_GND H1 HDR_GND RG HDR_GND CCD_GND CCD_GND CCD_OUT CCD_GND CCD_GND CCD_GND 12V CCD_GND S_GND S_GND ZM_XA ZM_XB ZM_A ZM_B GND NightShot_Vcc FC_SENS_OUT THERMO_OUT FC_SENS_Vcc GND FC_XA FC_XB FC_A FC_B ZM_SENS_OUT GND ZM_SENS_Vcc HALL(+) BIAS(+) HALL(-) BIAS(-) GND GND DRIVE(-) DRIVE(+) SLOW SHUT
TO VC-241 BOARD CN701
(SEE PAGE 4-26)
TRV6 MODEL :DCR-TRV6
TRV6E MODEL :DCR-TRV6E
TRV11 MODEL :DCR-TRV11
TRV11E MODEL:DCR-TRV11E
IC3000
ICX220BKC-13 : TRV6/11 MODEL
ICX221BKC-13 : TRV6E/11E MODEL
CN3000 24P
DRIVE(-) DRIVE(+) GND HALL(-) BIAS(-) HALL(+) BIAS(+) ZM_SENS_Vcc ZM_SENS_OUT GND FC_B FC_A FC_XB FC_XA GND FC_SENS_Vcc THERMO_OUT FC_SENS_OUT GND NightShot_Vcc ZM_B ZM_A ZM_XB ZM_XA
LENS BLOCK
S3000
SUPER NIGHT SHOT
D3000 MA8082-(K8).S0
GND LND300
16

LENS BLOCK is replaced as a block,
So that these PRINTED WIRING BOARD
and SCHEMATIC DIAGRAM are omitted.

SIGNAL PATH

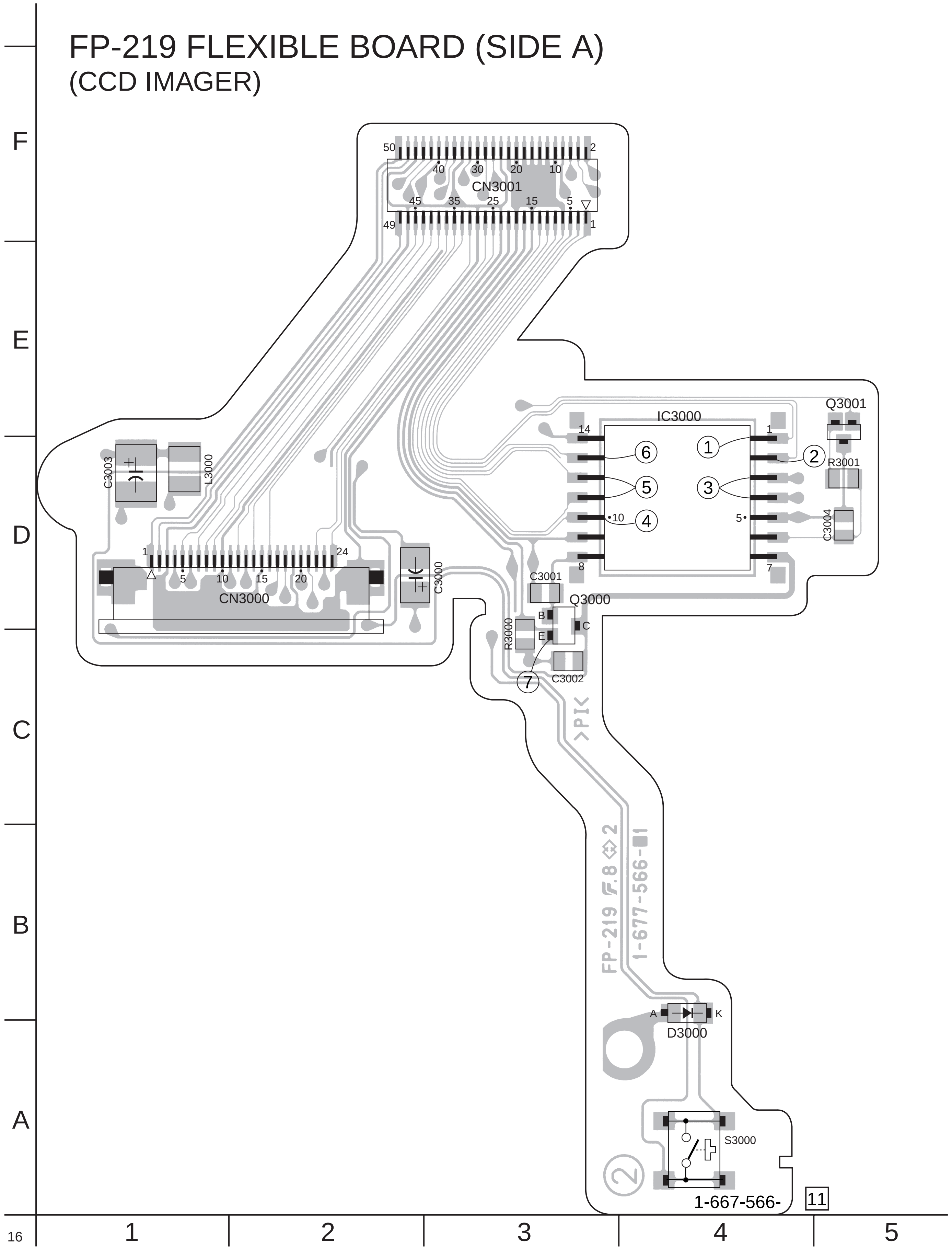
	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC			⇒
PB			

Precautions Upon Replaching CCD imager

- The FP-219 flexible board mounted as a repair part is not equipped with a CCD imager.
  When replaching this board, remove the CCD imager from the old one and mount it onto the new one.
- If the CCD imager has been replaced, carry out all the adjustments for the camera section.
- As the CCD imager may be damaged by static electrictiy from its structure, handle it carefully like for the MOS IC.
  In addition, ensure that the receiver is not covered with dusts nor exposed to strog light.

FP-219 FLEXIBLE BOARD (CCD IMAGER) PRINTED WIRING BOARD

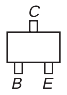
— Ref. No. FP-219 Flexible Board; 30,000 Series —


FP-219 FLEXIBLE BOARD (SIDE A)
(CCD IMAGER)
F
E
D
C
B
A
16
1
2
3
4
5
CN3001
50
2
40
30
20
10
45
35
25
15
5
49
1
IC3000
Q3001
R3001
C3004
14
1
8
7
•10
5•
①
②
③
④
⑤
⑥
⑦
C3003
L3000
CN3000
1
24
5
10
15
20
C3000
C3001
Q3000
B
C
E
R3000
C3002
FP-219
1-677-566-11
A
K
D3000
S3000
1-667-566-
11

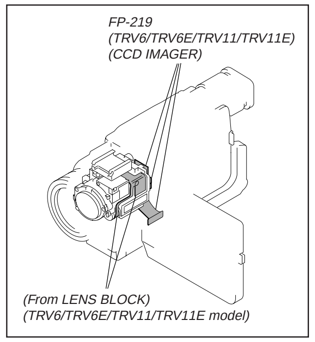
For printed wiring board

- This board is two-layer print board. However, the patterns of layers two have not been included in the diagram.
- Chip parts

Transistor



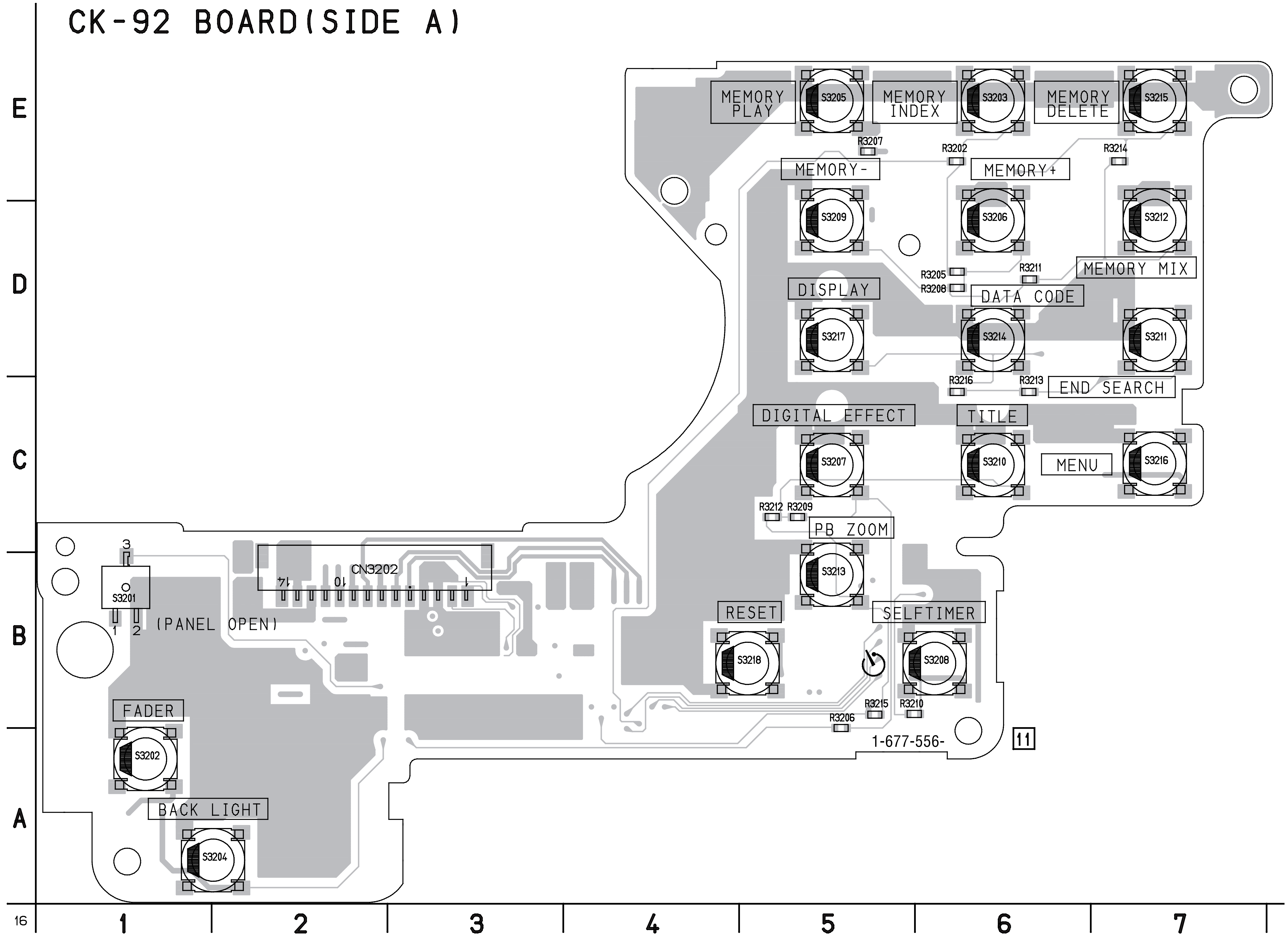
There are few cases that the part printed on this diagram isn't mounted in this model.


FP-219
(TRV6/TRV6E/TRV11/TRV11E)
(CCD IMAGER)
(From LENS BLOCK)
(TRV6/TRV6E/TRV11/TRV11E model)

Schematic diagram and printed wiring board of the VC-240/241 board are not shown.
Pages from 4-17 to 4-74 are not shown.

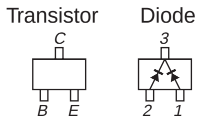
CK-92 (KEY) PRINTED WIRING BOARD

— Ref. No. CK-92 Board; 20,000 Series —

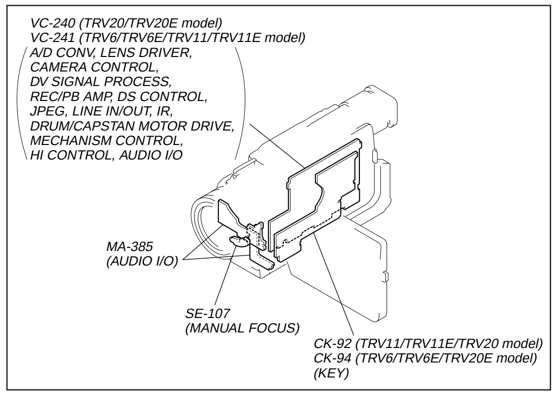

CK-92 BOARD(SIDE A)
E
D
C
B
A
1
2
3
4
5
6
7
16
MEMORY PLAY
S3205
MEMORY INDEX
S3203
MEMORY DELETE
S3215
R3207
R3202
R3214
MEMORY-
MEMORY+
S3209
S3206
S3212
R3205
R3208
R3211
MEMORY MIX
DISPLAY
DATA CODE
S3217
S3214
S3211
R3216
R3213
END SEARCH
DIGITAL EFFECT
TITLE
S3207
S3210
MENU
S3216
R3212
R3209
PB ZOOM
S3213
CN3202
14
10
1
3
S3201
1
2
(PANEL OPEN)
RESET
SELFTIMER
S3218
S3208
R3215
R3210
R3206
1-677-556-
11
FADER
S3202
BACK LIGHT
S3204

For printed wiring board

- Refer to page 4-125 for parts location.
- This board is four-layer print board. However, the patterns of layers two and three have not been included in the diagram.
- Chip parts

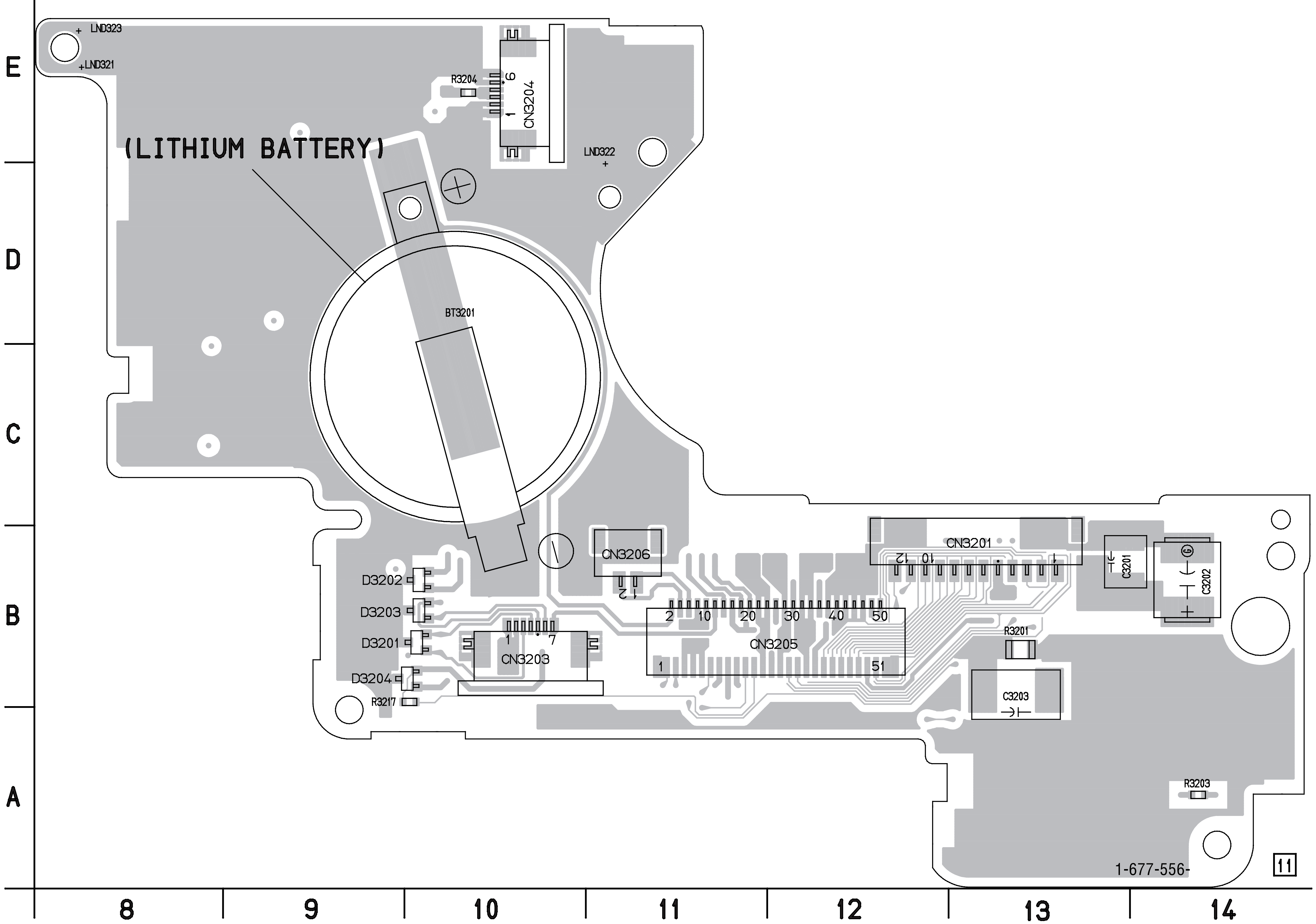

Transistor
C
B
E
Diode
3
2
1

There are few cases that the part printed on this diagram isn't mounted in this model.

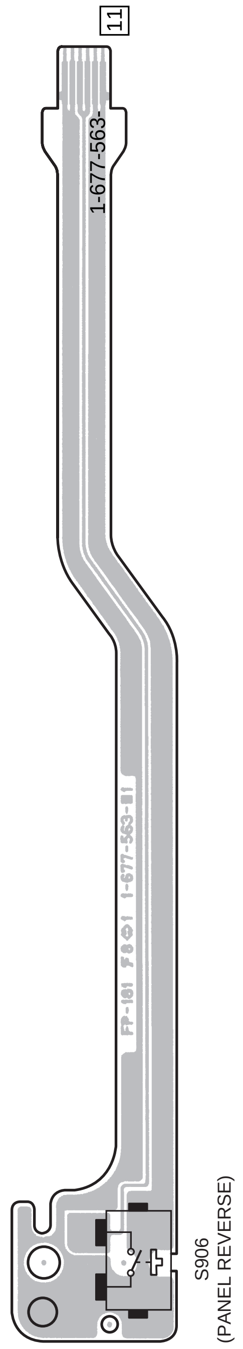

VC-240 (TRV20/TRV20E model)
VC-241 (TRV6/TRV6E/TRV11/TRV11E model)
A/D CONV, LENS DRIVER,
CAMERA CONTROL,
DV SIGNAL PROCESS,
REC/PB AMP, DS CONTROL,
JPEG, LINE IN/OUT, IR,
DRUM/CAPSTAN MOTOR DRIVE,
MECHANISM CONTROL,
HI CONTROL, AUDIO I/O
MA-385
(AUDIO I/O)
SE-107
(MANUAL FOCUS)
CK-92 (TRV11/TRV11E/TRV20 model)
CK-94 (TRV6/TRV6E/TRV20E model)
(KEY)

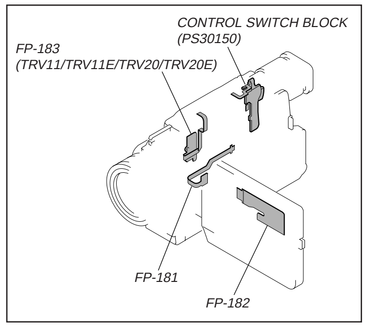
FP-181 FLEXIBLE BOARD (PANEL REVERSE)
PRINTED WIRING BOARD

CK-92 BOARD(SIDE B)


LND323
LND321
R3204
6
1
CN3204
LND322
(LITHIUM BATTERY)
BT3201
CN3206
2
1
D3202
D3203
D3201
D3204
R3217
1
7
CN3203
2
10
20
30
40
50
CN3205
1
51
CN3201
12
10
1
C3201
C3202
R3201
C3203
R3203
1-677-556-
11
E
D
C
B
A
8
9
10
11
12
13
14

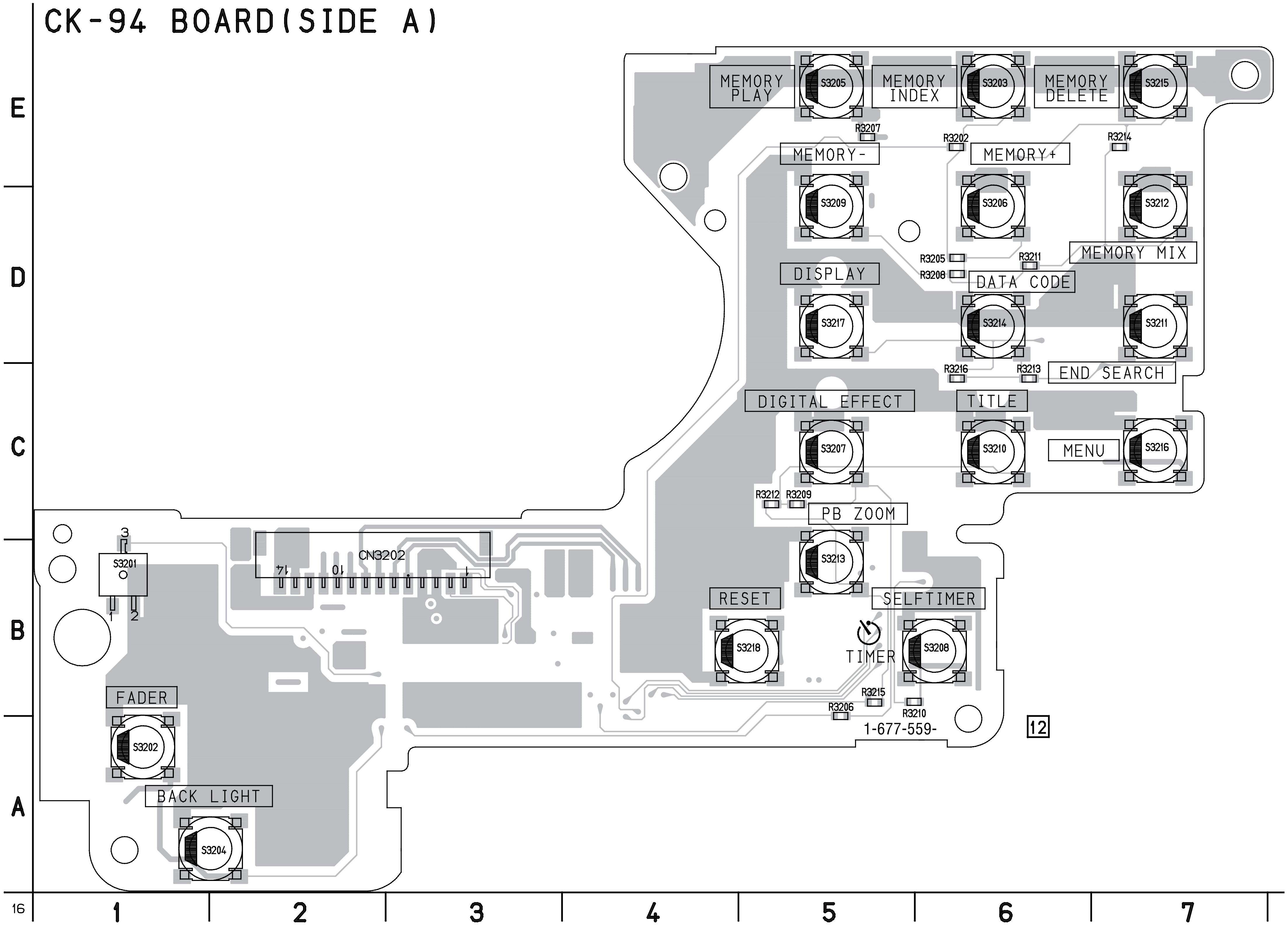
FP-181 FLEXIBLE BOARD


11
1-677-563-
FP-181
1-677-563-11
S906
(PANEL REVERSE)


CONTROL SWITCH BLOCK
(PS30150)
FP-183
(TRV11/TRV11E/TRV20/TRV20E)
FP-181
FP-182

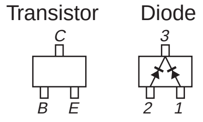
CK-94 (KEY) PRINTED WIRING BOARD

— Ref. No. CK-94 Board; 30,000 Series —

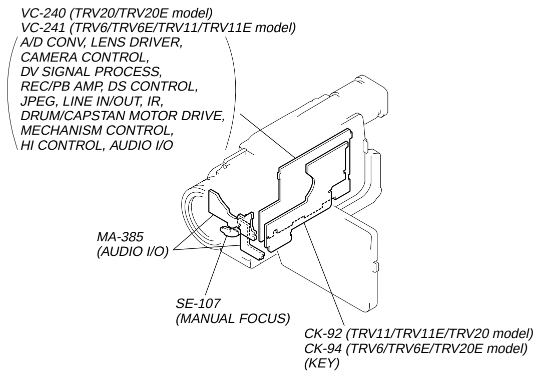

CK-94 BOARD(SIDE A)
E
D
C
B
A
16
1
2
3
4
5
6
7
MEMORY PLAY
S3205
MEMORY INDEX
S3203
MEMORY DELETE
S3215
R3207
R3202
R3214
MEMORY-
MEMORY+
S3209
S3206
S3212
R3205
R3208
R3211
MEMORY MIX
DISPLAY
DATA CODE
S3217
S3214
S3211
R3216
R3213
END SEARCH
DIGITAL EFFECT
TITLE
S3207
S3210
MENU
S3216
R3212
R3209
PB ZOOM
S3213
CN3202
14
10
1
3
S3201
1
2
RESET
SELFTIMER
S3218
TIMER
S3208
R3215
R3206
R3210
1-677-559-
12
FADER
S3202
BACK LIGHT
S3204

For printed wiring board

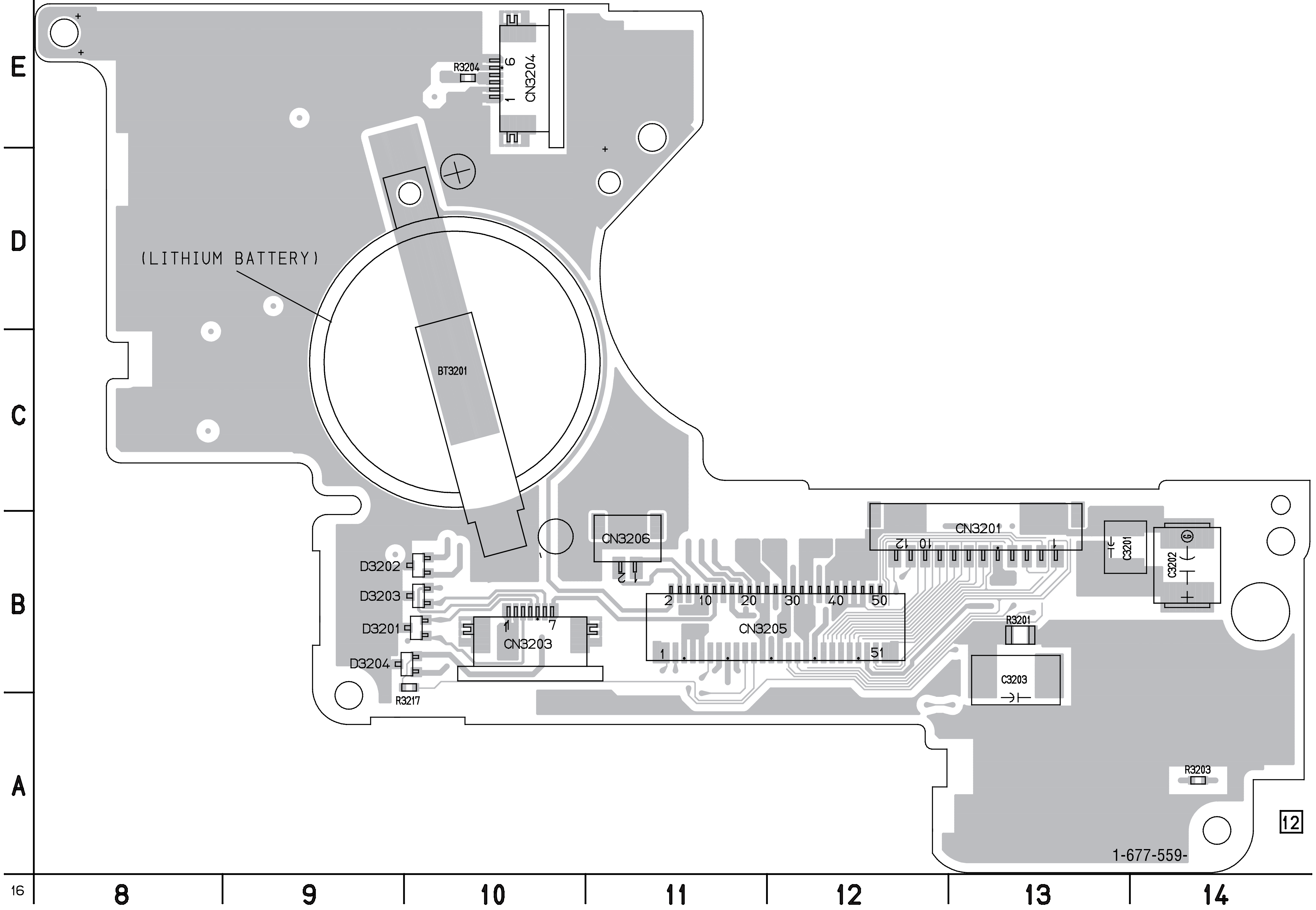
- Refer to page 4-125 for parts location.
- This board is four-layer print board. However, the patterns of layers two and three have not been included in the diagram.
- Chip parts


Transistor
Diode
C
B
E
3
2
1

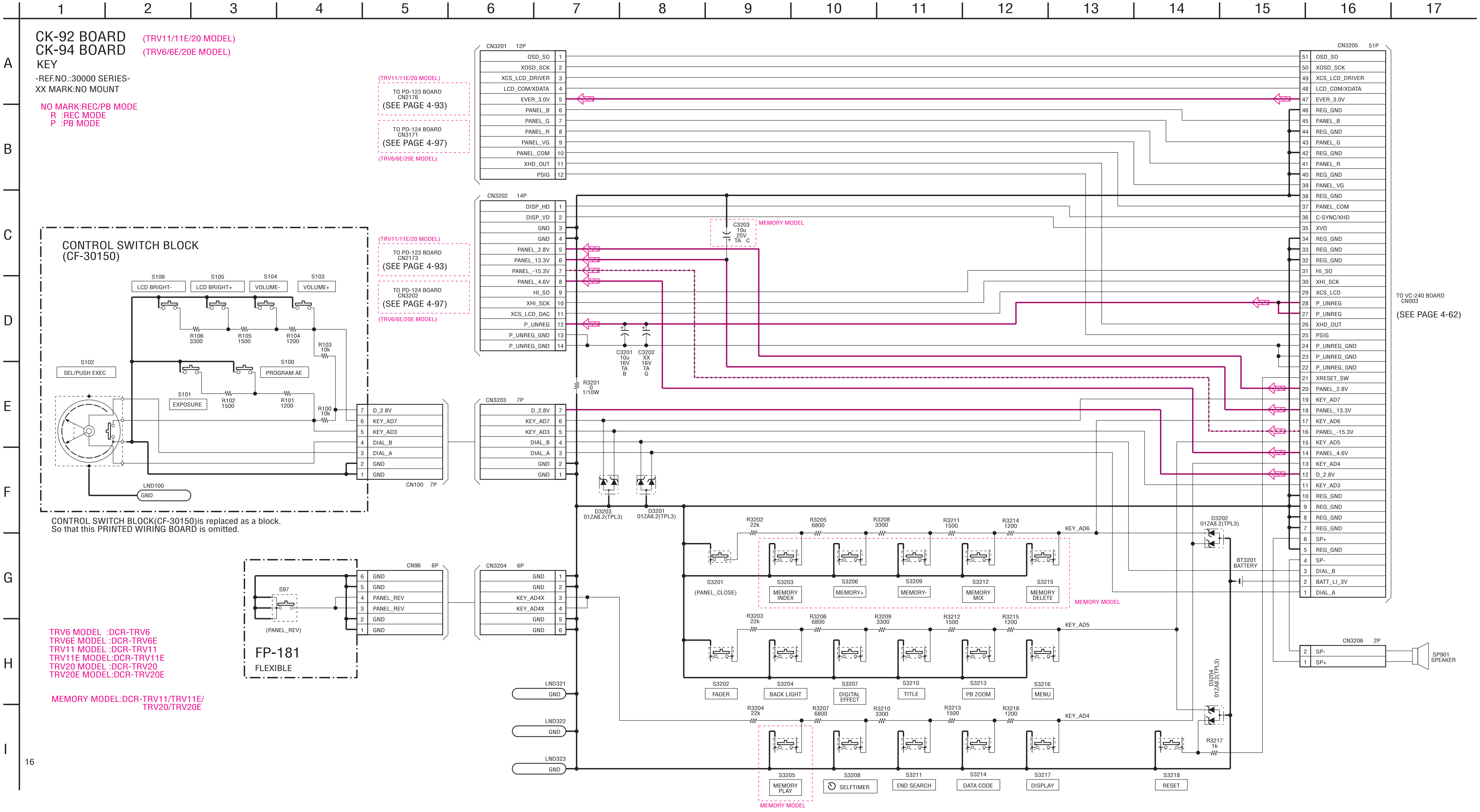
There are few cases that the part printed on this diagram isn't mounted in this model.


VC-240 (TRV20/TRV20E model)
VC-241 (TRV6/TRV6E/TRV11/TRV11E model)
A/D CONV, LENS DRIVER,
CAMERA CONTROL,
DV SIGNAL PROCESS,
REC/PB AMP, DS CONTROL,
JPEG, LINE IN/OUT, IR,
DRUM/CAPSTAN MOTOR DRIVE,
MECHANISM CONTROL,
HI CONTROL, AUDIO I/O
MA-385
(AUDIO I/O)
SE-107
(MANUAL FOCUS)
CK-92 (TRV11/TRV11E/TRV20 model)
CK-94 (TRV6/TRV6E/TRV20E model)
(KEY)

CK-94 BOARD(SIDE B)

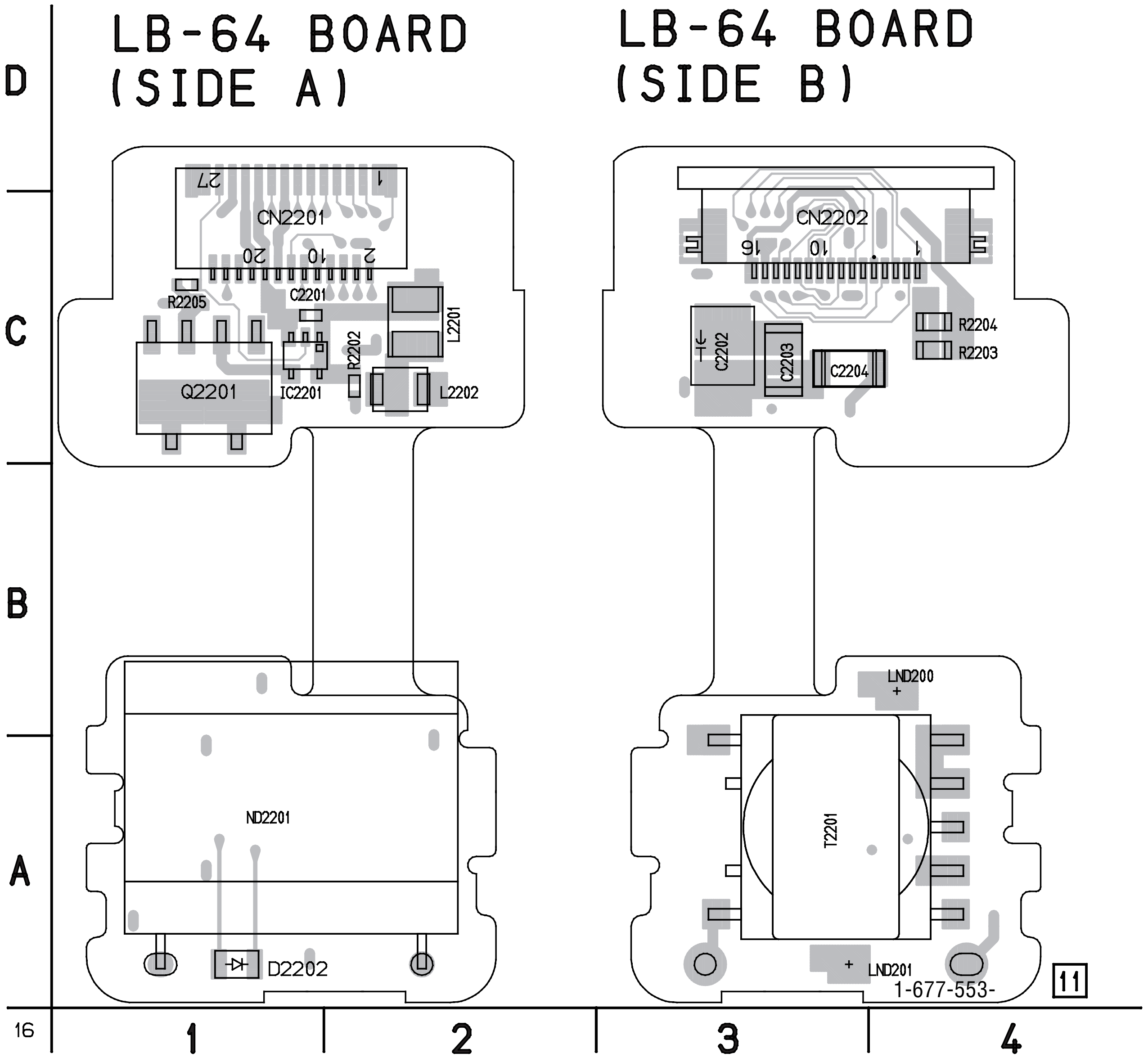

E
D
C
B
A
(LITHIUM BATTERY)
BT3201
R3204
CN3204
6
1
CN3206
1 2
CN3201
10 12
1
C3201
C3202
D3202
D3203
D3201
D3204
R3217
CN3203
1
7
CN3205
2 10 20 30 40 50
1
51
R3201
C3203
R3203
12
1-677-559-
16
8
9
10
11
12
13
14

For Schematic Diagram
- Refer to page 4-75,79 for printed wiring board.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
A B C D E F G H I
CK-92 BOARD (TRV11/11E/20 MODEL)
CK-94 BOARD (TRV6/6E/20E MODEL)
KEY
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
CONTROL SWITCH BLOCK
(CF-30150)
S106 LCD BRIGHT-
S105 LCD BRIGHT+
S104 VOLUME-
S103 VOLUME+
R106 3300
R105 1500
R104 1200
R103 10k
S102 SEL/PUSH EXEC
S100 PROGRAM AE
S101 EXPOSURE
R102 1500
R101 1200
R100 10k
LND100 GND
CN100 7P
7 D_2.8V
6 KEY_AD7
5 KEY_AD3
4 DIAL_B
3 DIAL_A
2 GND
1 GND
CONTROL SWITCH BLOCK(CF-30150)is replaced as a block.
So that this PRINTED WIRING BOARD is omitted.
(TRV11/11E/20 MODEL)
TO PD-123 BOARD CN2176 (SEE PAGE 4-93)
TO PD-124 BOARD CN3171 (SEE PAGE 4-97)
(TRV6/6E/20E MODEL)
(TRV11/11E/20 MODEL)
TO PD-123 BOARD CN2173 (SEE PAGE 4-93)
TO PD-124 BOARD CN3202 (SEE PAGE 4-97)
(TRV6/6E/20E MODEL)
CN3201 12P
1 OSD_SO
2 XOSD_SCK
3 XCS_LCD_DRIVER
4 LCD_COM/XDATA
5 EVER_3.0V
6 PANEL_B
7 PANEL_G
8 PANEL_R
9 PANEL_VG
10 PANEL_COM
11 XHD_OUT
12 PSIG
CN3202 14P
1 DISP_HD
2 DISP_VD
3 GND
4 GND
5 PANEL_2.8V
6 PANEL_13.3V
7 PANEL_-15.3V
8 PANEL_4.6V
9 HI_SO
10 XHI_SCK
11 XCS_LCD_DAC
12 P_UNREG
13 P_UNREG_GND
14 P_UNREG_GND
C3203 10u 25V TA C
MEMORY MODEL
C3201 10u 16V TA B
C3202 XX 16V TA G
R3201 0 1/10W
CN3203 7P
7 D_2.8V
6 KEY_AD7
5 KEY_AD3
4 DIAL_B
3 DIAL_A
2 GND
1 GND
D3203 01ZA8.2(TPL3)
D3201 01ZA8.2(TPL3)
CN96 6P
6 GND
5 GND
4 PANEL_REV
3 PANEL_REV
2 GND
1 GND
S97 (PANEL_REV)
FP-181 FLEXIBLE
CN3204 6P
1 GND
2 GND
3 KEY_AD4X
4 KEY_AD4X
5 GND
6 GND
LND321 GND
LND322 GND
LND323 GND
R3202 22k
R3205 6800
R3208 3300
R3211 1500
R3214 1200
KEY_AD6
S3201 (PANEL_CLOSE)
S3203 MEMORY INDEX
S3206 MEMORY+
S3209 MEMORY-
S3212 MEMORY MIX
S3215 MEMORY DELETE
MEMORY MODEL
R3203 22k
R3206 6800
R3209 3300
R3212 1500
R3215 1200
KEY_AD5
S3202 FADER
S3204 BACK LIGHT
S3207 DIGITAL EFFECT
S3210 TITLE
S3213 PB ZOOM
S3216 MENU
R3204 22k
R3207 6800
R3210 3300
R3213 1500
R3216 1200
KEY_AD4
S3205 MEMORY PLAY
MEMORY MODEL
S3208 SELFTIMER
S3211 END SEARCH
S3214 DATA CODE
S3217 DISPLAY
S3218 RESET
D3202 01ZA8.2(TPL3)
D3204 01ZA8.2(TPL3)
BT3201 BATTERY
R3217 1k
CN3205 51P
51 OSD_SO
50 XOSD_SCK
49 XCS_LCD_DRIVER
48 LCD_COM/XDATA
47 EVER_3.0V
46 REG_GND
45 PANEL_B
44 REG_GND
43 PANEL_G
42 REG_GND
41 PANEL_R
40 REG_GND
39 PANEL_VG
38 REG_GND
37 PANEL_COM
36 C-SYNC/XHD
35 XVD
34 REG_GND
33 REG_GND
32 REG_GND
31 HI_SO
30 XHI_SCK
29 XCS_LCD
28 P_UNREG
27 P_UNREG
26 XHD_OUT
25 PSIG
24 P_UNREG_GND
23 P_UNREG_GND
22 P_UNREG_GND
21 XRESET_SW
20 PANEL_2.8V
19 KEY_AD7
18 PANEL_13.3V
17 KEY_AD6
16 PANEL_-15.3V
15 KEY_AD5
14 PANEL_4.6V
13 KEY_AD4
12 D_2.8V
11 KEY_AD3
10 REG_GND
9 REG_GND
8 REG_GND
7 REG_GND
6 SP+
5 REG_GND
4 SP-
3 DIAL_B
2 BATT_LI_3V
1 DIAL_A
TO VC-240 BOARD CN003 (SEE PAGE 4-62)
CN3206 2P
2 SP-
1 SP+
SP901 SPEAKER
TRV6 MODEL :DCR-TRV6
TRV6E MODEL :DCR-TRV6E
TRV11 MODEL :DCR-TRV11
TRV11E MODEL:DCR-TRV11E
TRV20 MODEL :DCR-TRV20
TRV20E MODEL:DCR-TRV20E
MEMORY MODEL:DCR-TRV11/TRV11E/TRV20/TRV20E
16

LB-64 (EVF BACK LIGHT) PRINTED WIRING BOARD

— Ref. No. LB-64 Board; 10,000 Series —

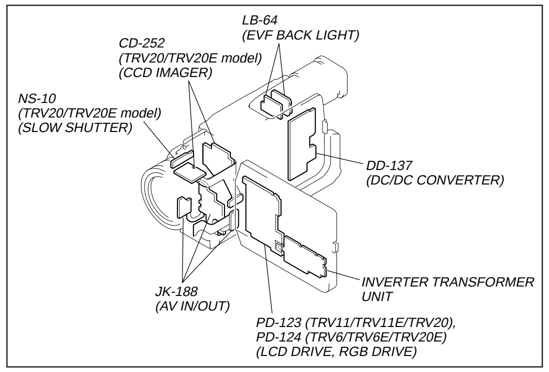


LB-64 BOARD (SIDE A)
LB-64 BOARD (SIDE B)
D
C
B
A
27
1
CN2201
20
10
2
R2205
C2201
L2201
R2202
Q2201
IC2201
L2202
CN2202
16
10
1
R2204
R2203
C2202
C2203
C2204
LND200
ND2201
D2202
T2201
LND201
1-677-553-
11
16
1
2
3
4

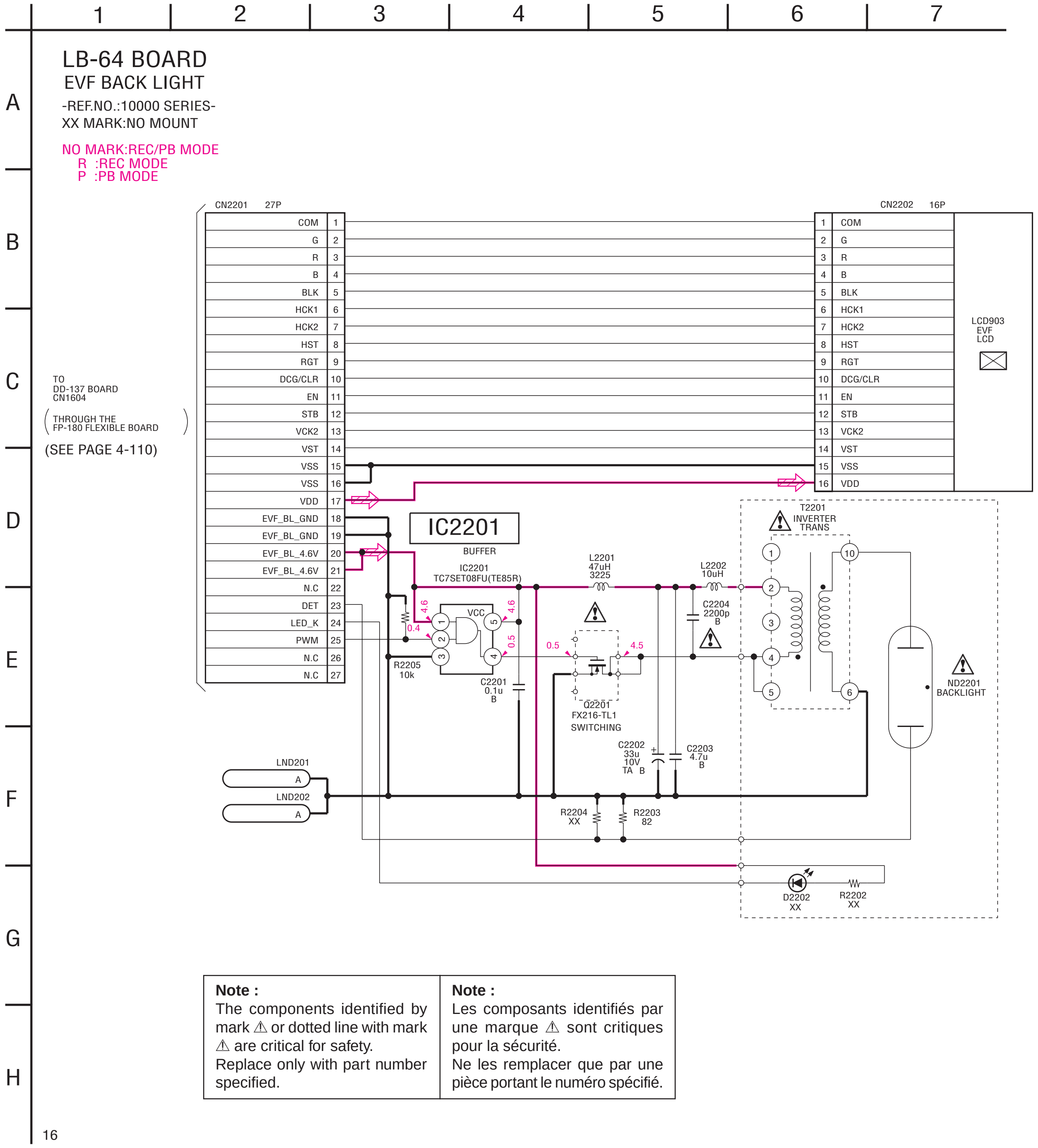
For printed wiring board

- Refer to page 4-126 for parts location.
- This board is four-layer print board. However, the patterns of layers two and three have not been included in the diagram.

There are few cases that the part printed on this diagram isn’t mounted in this model.



LB-64
(EVF BACK LIGHT)
CD-252
(TRV20/TRV20E model)
(CCD IMAGER)
NS-10
(TRV20/TRV20E model)
(SLOW SHUTTER)
DD-137
(DC/DC CONVERTER)
INVERTER TRANSFORMER
UNIT
JK-188
(AV IN/OUT)
PD-123 (TRV11/TRV11E/TRV20),
PD-124 (TRV6/TRV6E/TRV20E)
(LCD DRIVE, RGB DRIVE)



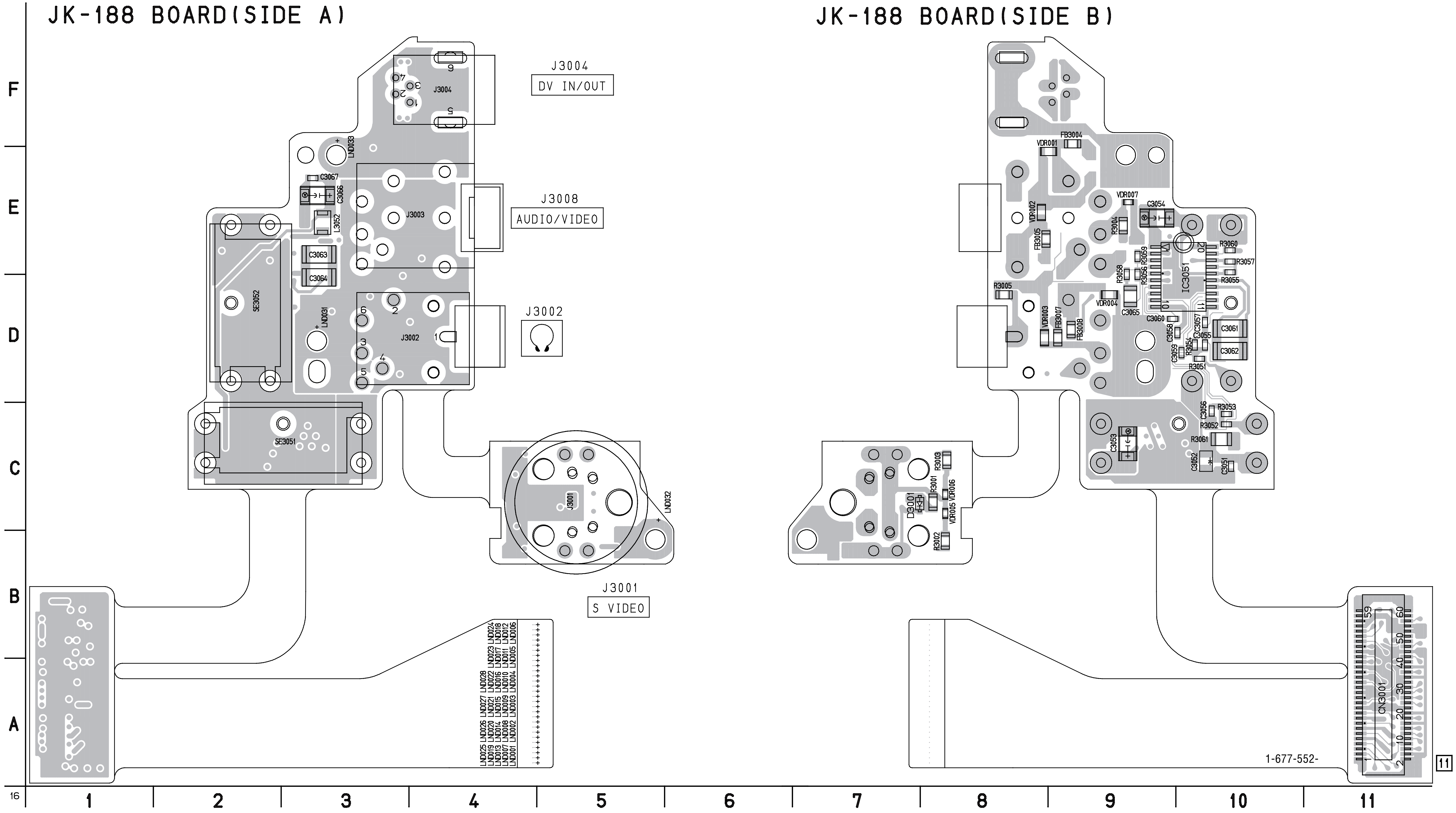
1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
LB-64 BOARD
EVF BACK LIGHT
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
CN2201 27P
COM 1
G 2
R 3
B 4
BLK 5
HCK1 6
HCK2 7
HST 8
RGT 9
DCG/CLR 10
EN 11
STB 12
VCK2 13
VST 14
VSS 15
VSS 16
VDD 17
EVF_BL_GND 18
EVF_BL_GND 19
EVF_BL_4.6V 20
EVF_BL_4.6V 21
N.C 22
DET 23
LED_K 24
PWM 25
N.C 26
N.C 27
CN2202 16P
1 COM
2 G
3 R
4 B
5 BLK
6 HCK1
7 HCK2
8 HST
9 RGT
10 DCG/CLR
11 EN
12 STB
13 VCK2
14 VST
15 VSS
16 VDD
LCD903
EVF
LCD
TO
DD-137 BOARD
CN1604
THROUGH THE
FP-180 FLEXIBLE BOARD
(SEE PAGE 4-110)
IC2201
BUFFER
IC2201
TC7SET08FU(TE85R)
VCC
4.6
0.4
4.6
0.5
0.5
4.5
R2205
10k
C2201
0.1u
B
L2201
47uH
3225
L2202
10uH
C2204
2200p
B
Q2201
FX216-TL1
SWITCHING
C2202
33u
10V
TA B
C2203
4.7u
B
R2204
XX
R2203
82
T2201
INVERTER
TRANS
ND2201
BACKLIGHT
LND201
A
LND202
A
D2202
XX
R2202
XX
16

Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note :
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

JK-188 (A/V IN/OUT) PRINTED WIRING BOARD

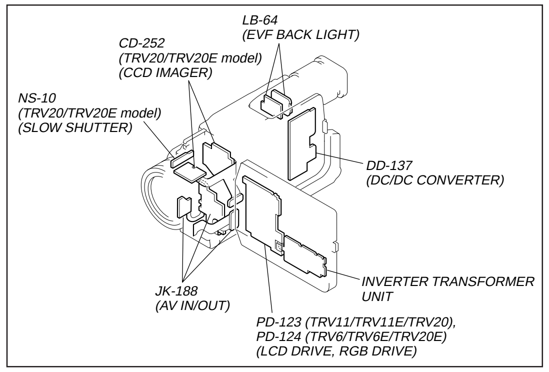
— Ref. No. JK-188 Board; 10,000 Series —


JK-188 BOARD(SIDE A)
JK-188 BOARD(SIDE B)
J3004
DV IN/OUT
J3008
AUDIO/VIDEO
J3002
J3001
S VIDEO
J3003
SE3052
SE3051
C3063
C3064
C3066
C3067
L3052
LND031
LND032
LND033
IC3051
CN3001
D3001
C3051
C3052
C3053
C3054
C3055
C3056
C3057
C3058
C3059
C3060
C3061
C3062
C3065
R3001
R3002
R3003
R3004
R3005
R3051
R3052
R3053
R3054
R3055
R3056
R3057
R3058
R3059
R3060
R3061
FB3004
FB3005
FB3007
FB3008
VDR001
VDR002
VDR003
VDR004
VDR005
VDR006
VDR007
1-677-552-
11
F
E
D
C
B
A
16
1
2
3
4
5
6
7
8
9
10
11

For printed wiring board

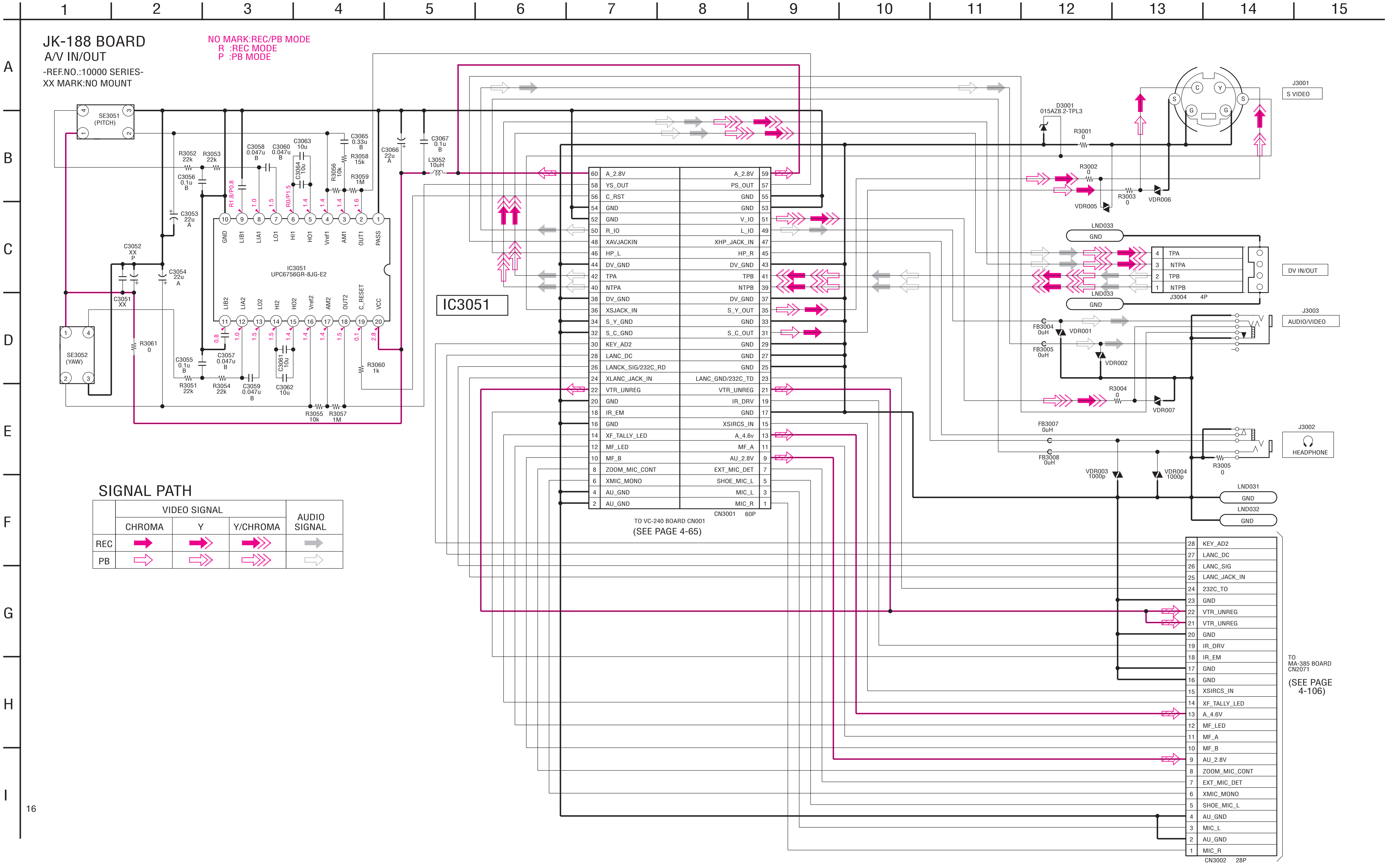
- Refer to page 4-126 for parts location.
- This board is four-layer print board. However, the patterns of layers two and three have not been included in the diagram.

There are few cases that the part printed on this diagram isn't mounted in this model.


LB-64
(EVF BACK LIGHT)
CD-252
(TRV20/TRV20E model)
(CCD IMAGER)
NS-10
(TRV20/TRV20E model)
(SLOW SHUTTER)
DD-137
(DC/DC CONVERTER)
INVERTER TRANSFORMER UNIT
JK-188
(AV IN/OUT)
PD-123 (TRV11/TRV11E/TRV20),
PD-124 (TRV6/TRV6E/TRV20E)
(LCD DRIVE, RGB DRIVE)

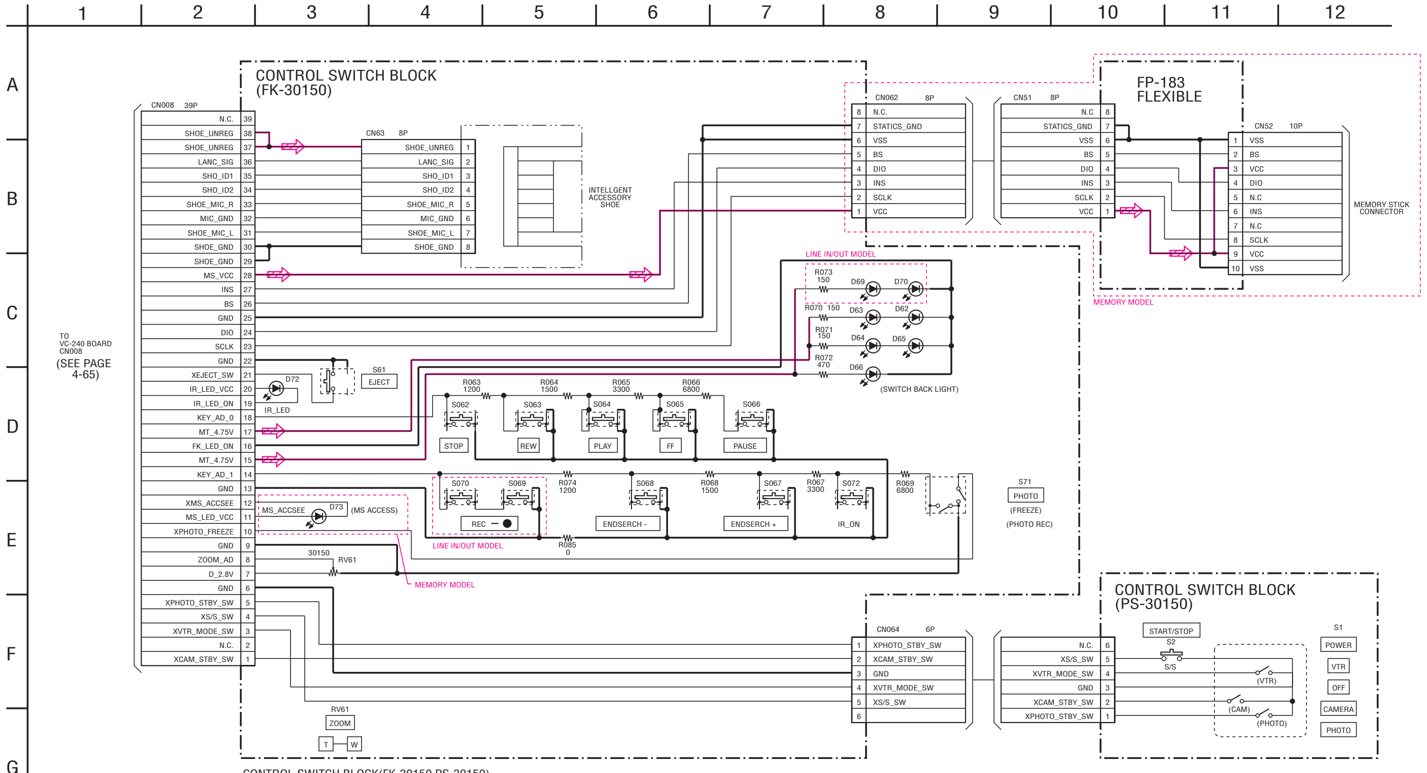
JK-188 BOARD
A/V IN/OUT
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT

NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
16
SE3051 (PITCH)
SE3052 (YAW)
R3052 22k
R3053 22k
C3056 0.1u B
C3053 22u A
C3052 XX P
C3054 22u A
C3051 XX
R3061 0
C3055 0.1u B
R3051 22k
C3057 0.047u B
R3054 22k
C3059 0.047u B
C3058 0.047u B
C3060 0.047u B
C3063 10u
C3064 10u
C3061 10u
C3062 10u
R3056 10k
C3065 0.33u B
R3058 15k
R3059 1M
R3055 10k
R3057 1M
R3060 1k
C3066 22u A
C3067 0.1u B
L3052 10uH
IC3051 UPC6756GR-8JG-E2
GND
LIB1
LIA1
LO1
HI1
HO1
Vref1
AM1
OUT1
PASS
LIB2
LIA2
LO2
HI2
HO2
Vref2
AM2
OUT2
C_RESET
VCC
R1.8/P0.8
1.0
1.5
R0/P1.5
1.4
1.4
1.4
1.6
0.8
1.0
1.5
1.5
1.4
1.4
1.4
1.5
0.1
2.8
IC3051
60 A_2.8V
58 YS_OUT
56 C_RST
54 GND
52 GND
50 R_IO
48 XAVJACKIN
46 HP_L
44 DV_GND
42 TPA
40 NTPA
38 DV_GND
36 XSJACK_IN
34 S_Y_GND
32 S_C_GND
30 KEY_AD2
28 LANC_DC
26 LANCK_SIG/232C_RD
24 XLANC_JACK_IN
22 VTR_UNREG
20 GND
18 IR_EM
16 GND
14 XF_TALLY_LED
12 MF_LED
10 MF_B
8 ZOOM_MIC_CONT
6 XMIC_MONO
4 AU_GND
2 AU_GND
A_2.8V 59
PS_OUT 57
GND 55
GND 53
V_IO 51
L_IO 49
XHP_JACK_IN 47
HP_R 45
DV_GND 43
TPB 41
NTPB 39
DV_GND 37
S_Y_OUT 35
GND 33
S_C_OUT 31
GND 29
GND 27
GND 25
LANC_GND/232C_TD 23
VTR_UNREG 21
IR_DRV 19
GND 17
XSIRCS_IN 15
A_4.6V 13
MF_A 11
AU_2.8V 9
EXT_MIC_DET 7
SHOE_MIC_L 5
MIC_L 3
MIC_R 1
CN3001 60P
TO VC-240 BOARD CN001
(SEE PAGE 4-65)
D3001 015AZ8.2-TPL3
R3001 0
R3002 0
R3003 0
VDR005
VDR006
J3001 S VIDEO
S
C
Y
G
LND033 GND
4 TPA
3 NTPA
2 TPB
1 NTPB
J3004 4P
DV IN/OUT
LND033 GND
J3003 AUDIO/VIDEO
FB3004 0uH
VDR001
FB3005 0uH
VDR002
R3004 0
VDR007
FB3007 0uH
FB3008 0uH
J3002 HEADPHONE
R3005 0
VDR003 1000p
VDR004 1000p
LND031 GND
LND032 GND
28 KEY_AD2
27 LANC_DC
26 LANC_SIG
25 LANC_JACK_IN
24 232C_TO
23 GND
22 VTR_UNREG
21 VTR_UNREG
20 GND
19 IR_DRV
18 IR_EM
17 GND
16 GND
15 XSIRCS_IN
14 XF_TALLY_LED
13 A_4.6V
12 MF_LED
11 MF_A
10 MF_B
9 AU_2.8V
8 ZOOM_MIC_CONT
7 EXT_MIC_DET
6 XMIC_MONO
5 SHOE_MIC_L
4 AU_GND
3 MIC_L
2 AU_GND
1 MIC_R
CN3002 28P
TO MA-385 BOARD CN2071
(SEE PAGE 4-106)

SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡	➡	➡	➡
PB	⇨	⇨	⇨	⇨


CONTROL SWITCH BLOCK
(FK-30150)
CN008 39P
TO VC-240 BOARD CN008
(SEE PAGE 4-65)
CN63 8P
INTELLIGENT ACCESSORY SHOE
CN062 8P
CN51 8P
FP-183 FLEXIBLE
CN52 10P
MEMORY STICK CONNECTOR
MEMORY MODEL
LINE IN/OUT MODEL
(SWITCH BACK LIGHT)
S61 EJECT
STOP
REW
PLAY
FF
PAUSE
REC
ENDSERCH -
ENDSERCH +
IR_ON
S71 PHOTO
(FREEZE)
(PHOTO REC)
(MS ACCESS)
RV61 ZOOM
T
W
CN064 6P
CONTROL SWITCH BLOCK
(PS-30150)
S2 START/STOP
S1
POWER
VTR
OFF
CAMERA
PHOTO
(VTR)
(CAM)
(PHOTO)

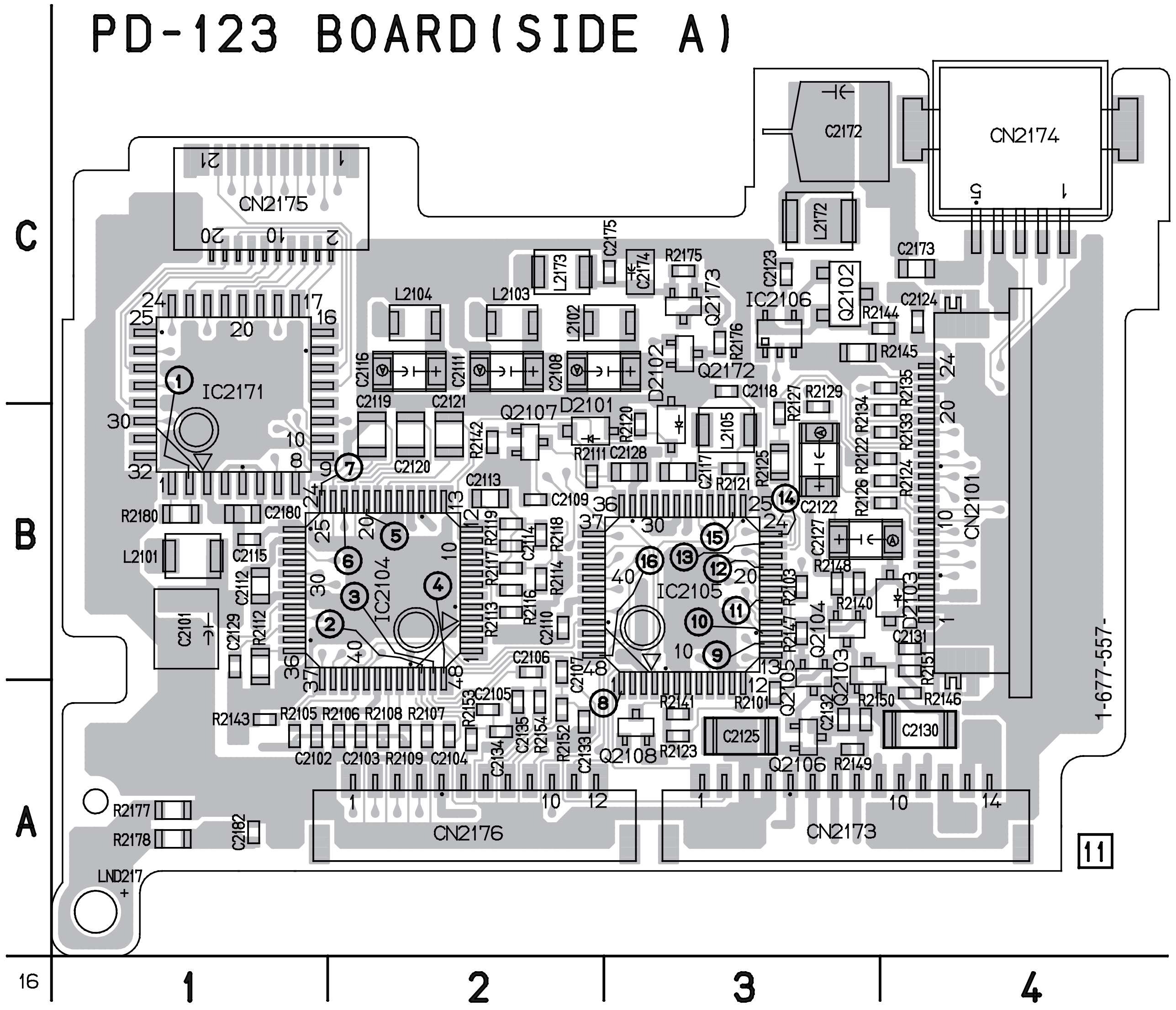
CONTROL SWITCH BLOCK(FK-30150,PS-30150) is replaced as a block.so that this PRINTED WIRING BOARD is omitted.

MEMORY MODEL :DCR-TRV11/TRV11E/TRV20/TRV20E

LINE IN/OUT MODEL:DCR-TRV6/TRV6E:E,HK,AUS,CN,JE,/TRV11/TRV11E:E,HK,AUS,CN,JE/TRV20/TRV20E

PD-123 (LCD DRIVE, RGB DRIVE) PRINTED WIRING BOARD

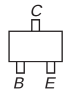
— Ref. No. PD-123 Board; 20,000 Series —

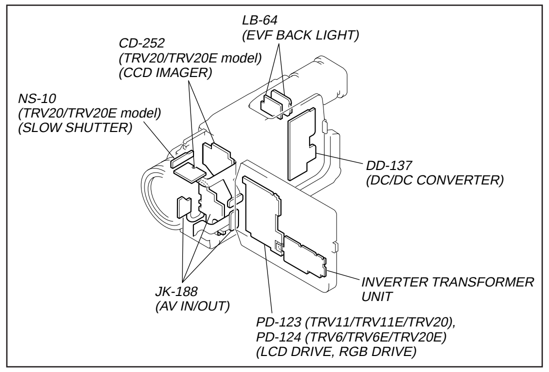

PD-123 BOARD(SIDE A)
CN2175
CN2174
C2172
IC2171
IC2104
IC2105
IC2106
CN2101
CN2176
CN2173
Q2107
Q2172
D2101
C2125
C2130
Q2106
Q2108
1-677-557-
11
A
B
C
1
2
3
4
16

For printed wiring board

- Refer to page 4-126 for parts location.
- This board is four-layer print board. However, the patterns of layers two to four have not been included in the diagram.
- Chip parts

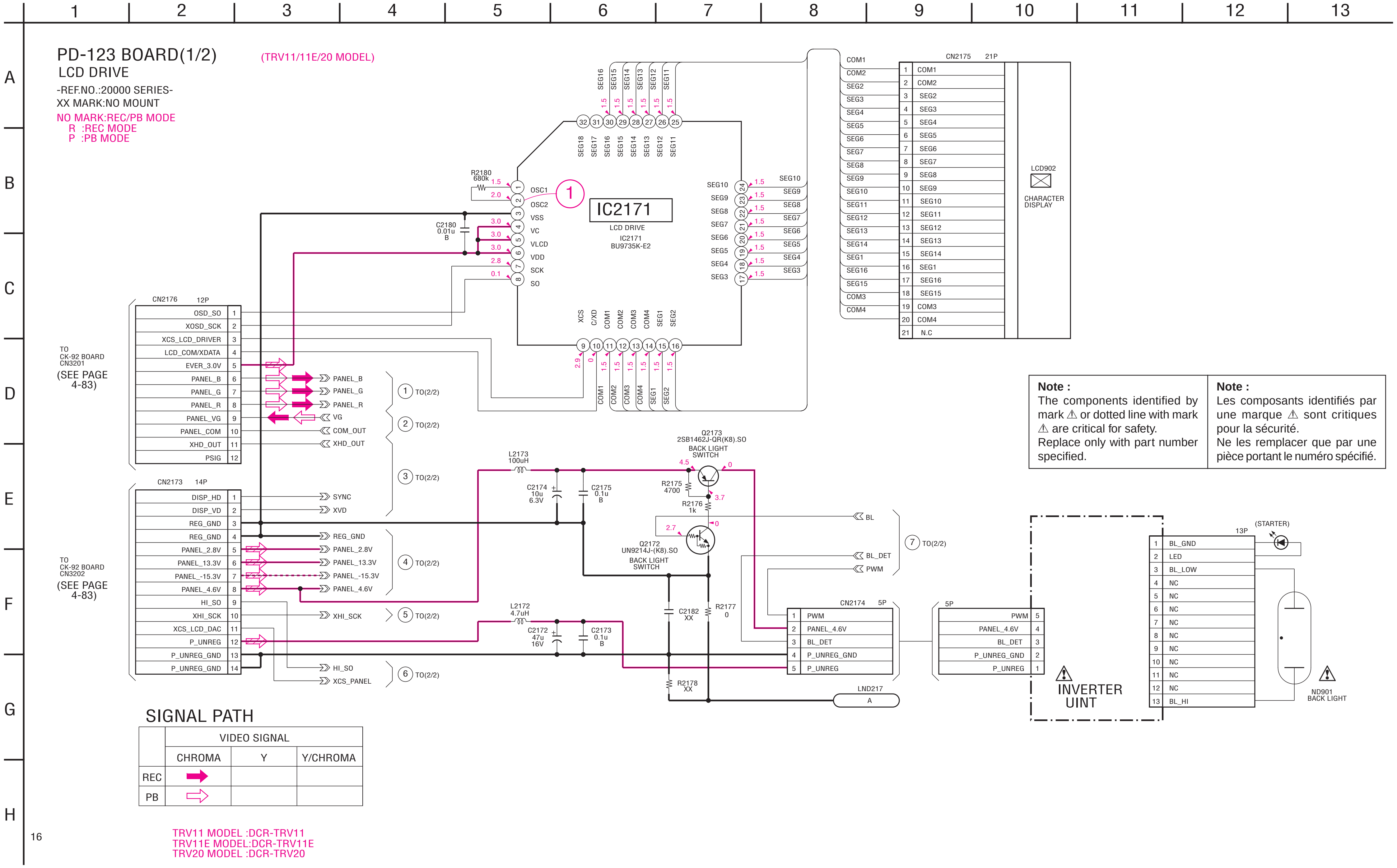
Transistor




LB-64
(EVF BACK LIGHT)
CD-252
(TRV20/TRV20E model)
(CCD IMAGER)
NS-10
(TRV20/TRV20E model)
(SLOW SHUTTER)
DD-137
(DC/DC CONVERTER)
INVERTER TRANSFORMER UNIT
JK-188
(AV IN/OUT)
PD-123 (TRV11/TRV11E/TRV20),
PD-124 (TRV6/TRV6E/TRV20E)
(LCD DRIVE, RGB DRIVE)

There are few cases that the part printed on this diagram isn't mounted in this model.

For Schematic Diagram
- Refer to page 4-113 for waveform.


PD-123 BOARD(1/2)
LCD DRIVE
(TRV11/11E/20 MODEL)
-REF.NO.:20000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC2171
LCD DRIVE
IC2171
BU9735K-E2
R2180
680k
C2180
0.01u
B
OSC1
OSC2
VSS
VC
VLCD
VDD
SCK
SO
CN2176 12P
OSD_SO
XOSD_SCK
XCS_LCD_DRIVER
LCD_COM/XDATA
EVER_3.0V
PANEL_B
PANEL_G
PANEL_R
PANEL_VG
PANEL_COM
XHD_OUT
PSIG
TO
CK-92 BOARD
CN3201
(SEE PAGE 4-83)
CN2173 14P
DISP_HD
DISP_VD
REG_GND
PANEL_2.8V
PANEL_13.3V
PANEL_-15.3V
PANEL_4.6V
HI_SO
XHI_SCK
XCS_LCD_DAC
P_UNREG
P_UNREG_GND
TO
CK-92 BOARD
CN3202
(SEE PAGE 4-83)
SYNC
XVD
VG
COM_OUT
XHD_OUT
XHI_SCK
XCS_PANEL
TO(2/2)
L2173
100uH
C2174
10u
6.3V
C2175
0.1u
B
Q2173
2SB1462J-QR(K8).SO
BACK LIGHT
SWITCH
R2175
4700
R2176
1k
Q2172
UN9214J-(K8).SO
BACK LIGHT
SWITCH
L2172
4.7uH
C2172
47u
16V
C2173
0.1u
B
C2182
XX
R2177
0
R2178
XX
BL
BL_DET
PWM
CN2174 5P
PWM
PANEL_4.6V
BL_DET
P_UNREG_GND
P_UNREG
LND217
A
CN2175 21P
COM1
COM2
SEG1
SEG2
SEG3
SEG4
SEG5
SEG6
SEG7
SEG8
SEG9
SEG10
SEG11
SEG12
SEG13
SEG14
SEG15
SEG16
COM3
COM4
N.C
LCD902
CHARACTER
DISPLAY
5P
INVERTER
UINT
13P
BL_GND
LED
BL_LOW
NC
BL_HI
(STARTER)
ND901
BACK LIGHT

Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note :
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

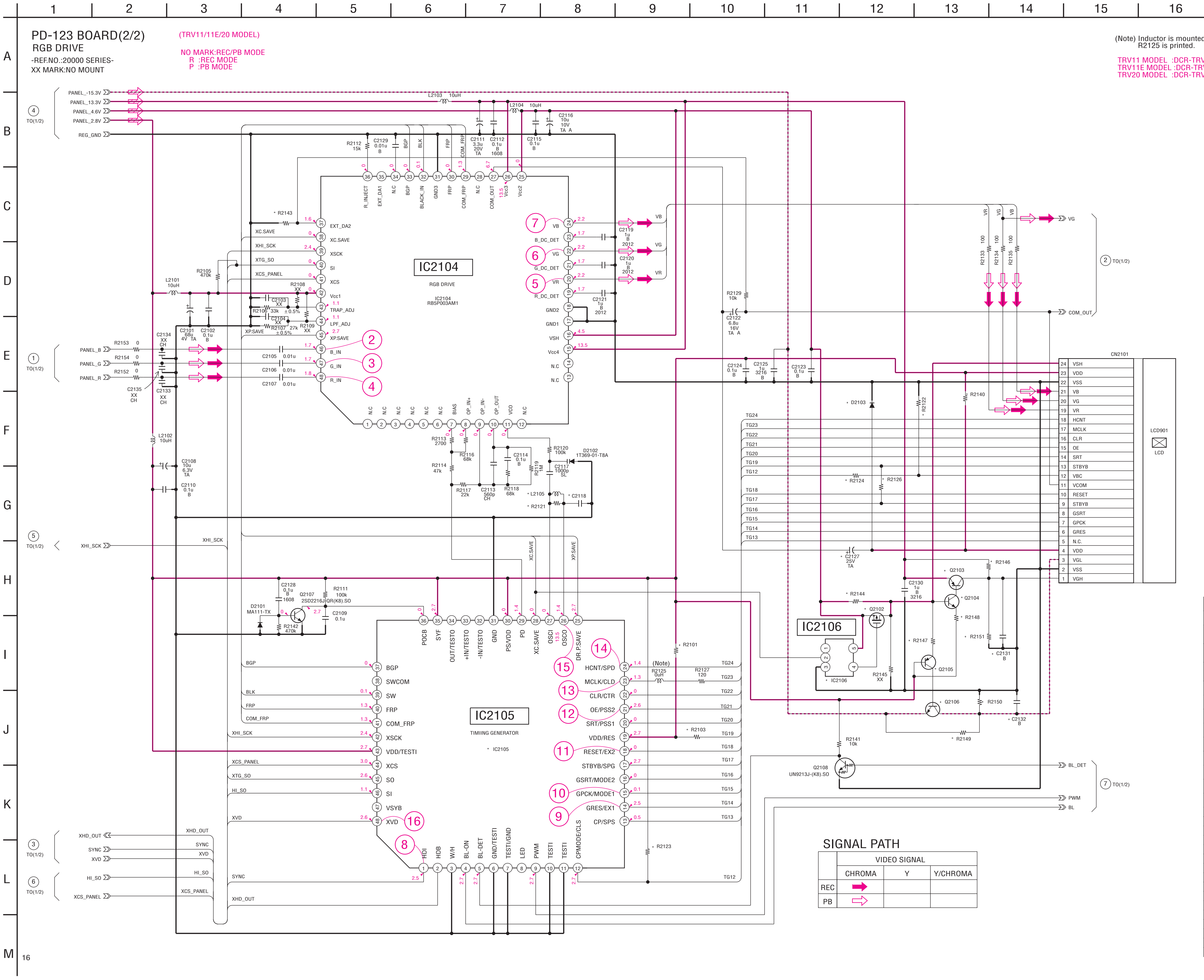
SIGNAL PATH

	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC	➡		
PB	⇨		

16

TRV11 MODEL :DCR-TRV11
TRV11E MODEL:DCR-TRV11E
TRV20 MODEL :DCR-TRV20

For Schematic Diagram
- Refer to page 4-92 for printed wiring board.
- Refer to page 4-114 for waveforms.



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
A B C D E F G H I J K L M
PD-123 BOARD(2/2)
RGB DRIVE
-REF.NO.:20000 SERIES-
XX MARK:NO MOUNT
(TRV11/11E/20 MODEL)
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
PANEL_-15.3V
PANEL_13.3V
PANEL_4.6V
PANEL_2.8V
REG_GND
TO(1/2)
PANEL_B
PANEL_G
PANEL_R
XHI_SCK
XHD_OUT
SYNC
XVD
HI_SO
XCS_PANEL
IC2104
RGB DRIVE
IC2104
RB5P003AM1
R_INJECT
EXT_DA1
N.C
BGP
BLACK_IN
GND3
FRP
COM_FRP
COM_OUT
Vcc3
Vcc2
EXT_DA2
XC.SAVE
XSCK
SI
XCS
Vcc1
TRAP_ADJ
LPF_ADJ
XP.SAVE
B_IN
G_IN
R_IN
VB
B_DC_DET
VG
G_DC_DET
VR
R_DC_DET
GND2
GND1
VSH
Vcc4
BIAS
OP_IN+
OP_IN-
OP_OUT
VCO
D2102
1T369-01-T8A
IC2105
TIMING GENERATOR
POCB
SYF
OUT/TESTO
+IN/TESTO
-IN/TESTO
GND
PS/VDD
PD
XC.SAVE
OSCI
OSCO
DR.P.SAVE
BGP
SWCOM
SW
FRP
COM_FRP
XSCK
VDD/TESTI
XCS
SO
SI
VSYB
XVD
HCNT/SPD
MCLK/CLD
CLR/CTR
OE/PSS2
SRT/PSS1
VDD/RES
RESET/EX2
STBYB/SPG
GSRT/MODE2
GPCK/MODE1
GRES/EX1
CP/SPS
HDI
HDB
W/H
BL-ON
BL-DET
GND/TESTI
TESTI/GND
LED
PWM
TESTI
CPMODE/CLS
D2101
MA111-TX
Q2107
2SD2216J-QR(K8).SO
IC2106
(Note)
R2125
0uH
Q2108
UN9213J-(K8).SO
BL_DET
PWM
BL
COM_OUT
VG
CN2101
VSH
VDD
VSS
VB
VG
VR
HCNT
MCLK
CLR
OE
SRT
STBYB
VBC
VCOM
RESET
STBYB
GSRT
GPCK
GRES
N.C.
VDD
VGL
VSS
VGH
LCD901
LCD
Q2102
Q2103
Q2104
Q2105
Q2106
SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
REC
PB
16

(Note) Inductor is mounted to the location where R2125 is printed.

TRV11 MODEL :DCR-TRV11
TRV11E MODEL :DCR-TRV11E
TRV20 MODEL :DCR-TRV20

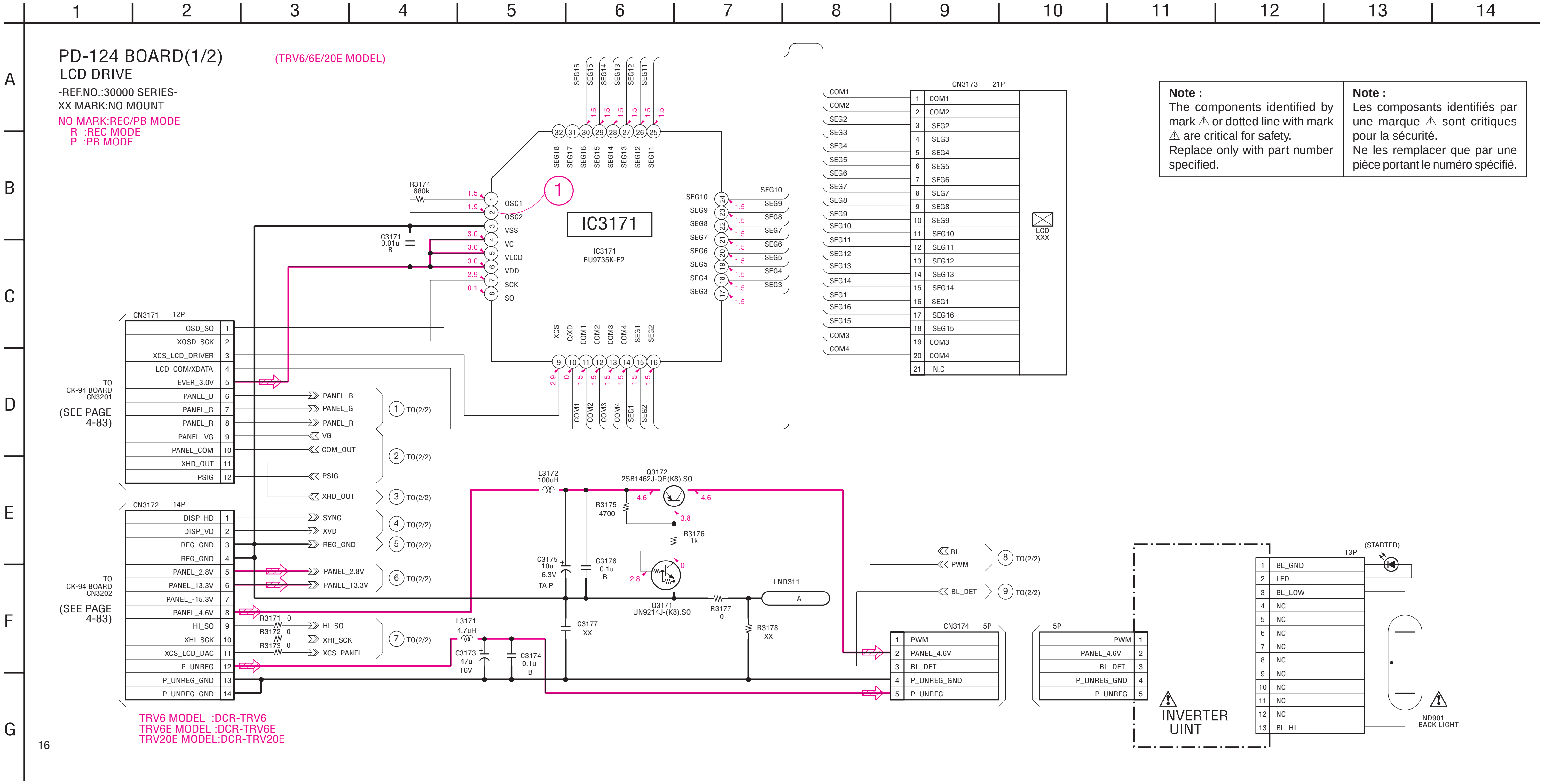
*MARKED:MOUNT TABLE

	TRV11/11E MODEL	TRV20 MODEL
C2127	1u 25V	XX
C2131	0.01u 16V B	XX
C2132	0.01u 16V B	XX
C2118	82p 16V CH	56p 16V CH
D2103	MA111-TX 871940450	XX
L2105	3.3uH ±5%	2.2uH ±5%
IC2105	LZ9FF424	CM7019L2-T
IC2106	TC7SET04FU	XX
Q2102	MGSF1P02LT	XX
Q2103	2S81462J-Q	XX
Q2104	2SD2216J-Q	XX
Q2105	2S81462J-Q	XX
Q2106	2SD2216J-Q	XX
R2101	XX	0
R2103	0	XX
R2122	XX	56k
R2123	XX	0
R2124	0	XX
R2126	XX	0
R2140	XX	0
R2143	180k	XX
R2144	XX	0
R2146	XX	0
R2147	10k	XX
R2148	47k	XX
R2149	XX	0
R2150	1M	XX
R2151	1M	XX
R2121	1M	XX

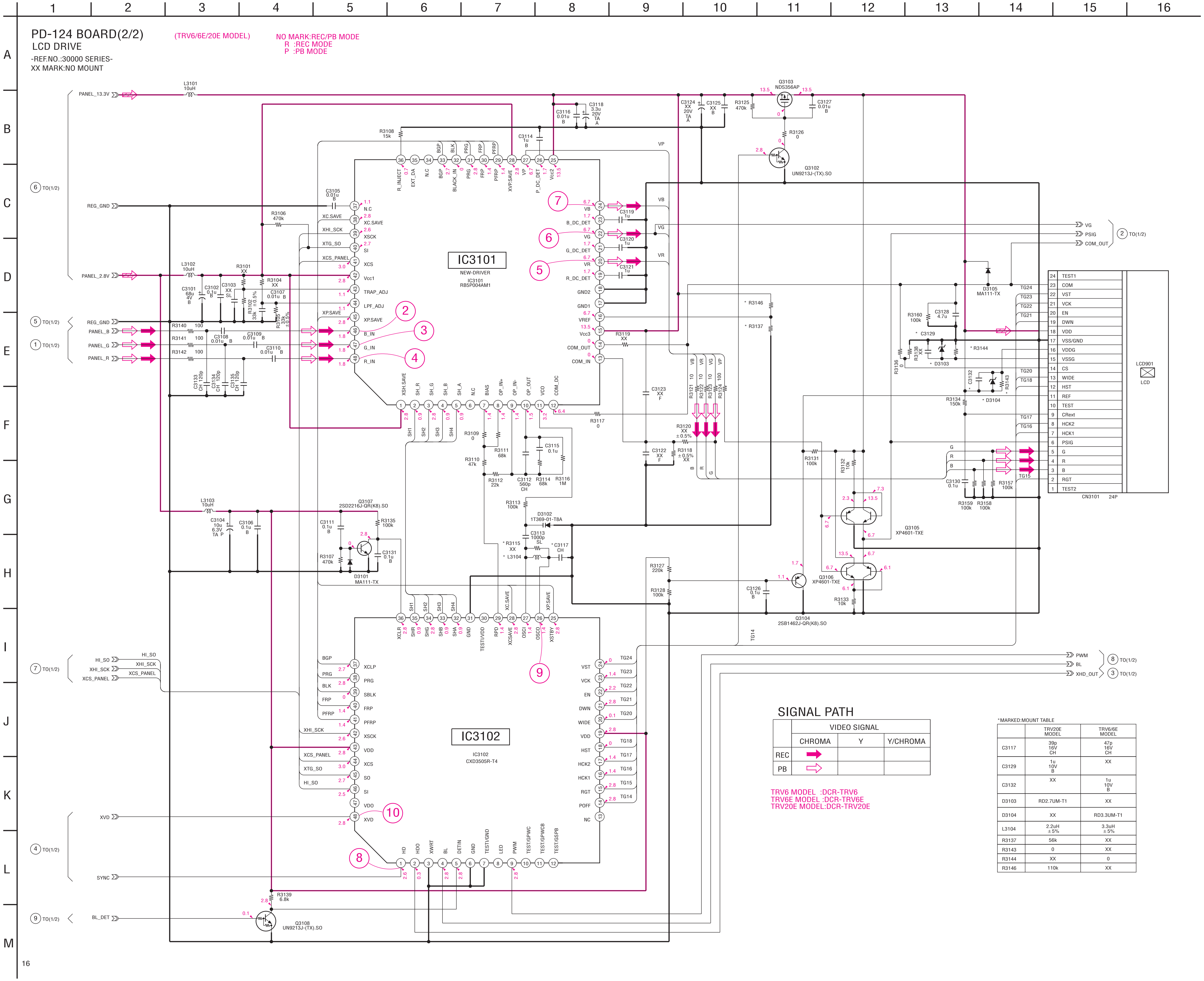
For Schematic Diagram

- Refer to page 4-101 for printed wiring board.
- Refer to page 4-114 for waveform.

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.


1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G
PD-124 BOARD(1/2)
LCD DRIVE
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
(TRV6/6E/20E MODEL)
IC3171
IC3171 BU9735K-E2
OSC1 OSC2 VSS VC VLCD VDD SCK SO
XCS C/XD COM1 COM2 COM3 COM4 SEG1 SEG2
SEG18 SEG17 SEG16 SEG15 SEG14 SEG13 SEG12 SEG11
SEG10 SEG9 SEG8 SEG7 SEG6 SEG5 SEG4 SEG3
R3174 680k
C3171 0.01u B
CN3171 12P
OSD_SO XOSD_SCK XCS_LCD_DRIVER LCD_COM/XDATA EVER_3.0V PANEL_B PANEL_G PANEL_R PANEL_VG PANEL_COM XHD_OUT PSIG
TO CK-94 BOARD CN3201
(SEE PAGE 4-83)
CN3172 14P
DISP_HD DISP_VD REG_GND REG_GND PANEL_2.8V PANEL_13.3V PANEL_-15.3V PANEL_4.6V HI_SO XHI_SCK XCS_LCD_DAC P_UNREG P_UNREG_GND P_UNREG_GND
TO CK-94 BOARD CN3202
(SEE PAGE 4-83)
PANEL_B PANEL_G PANEL_R VG COM_OUT PSIG XHD_OUT SYNC XVD REG_GND PANEL_2.8V PANEL_13.3V HI_SO XHI_SCK XCS_PANEL
TO(2/2)
R3171 0 R3172 0 R3173 0
L3171 4.7uH
C3173 47u 16V
C3174 0.1u B
L3172 100uH
C3175 10u 6.3V TA P
C3176 0.1u B
C3177 XX
Q3172 2SB1462J-QR(K8).SO
R3175 4700
R3176 1k
Q3171 UN9214J-(K8).SO
R3177 0
R3178 XX
LND311
BL PWM BL_DET
CN3173 21P
COM1 COM2 SEG2 SEG3 SEG4 SEG5 SEG6 SEG7 SEG8 SEG9 SEG10 SEG11 SEG12 SEG13 SEG14 SEG1 SEG16 SEG15 COM3 COM4 N.C
LCD XXX
CN3174 5P
PWM PANEL_4.6V BL_DET P_UNREG_GND P_UNREG
5P
INVERTER UINT
13P
BL_GND LED BL_LOW NC BL_HI
(STARTER)
ND901 BACK LIGHT
TRV6 MODEL :DCR-TRV6
TRV6E MODEL :DCR-TRV6E
TRV20E MODEL:DCR-TRV20E
16

For Schematic Diagram
- Refer to page 4-114 for waveforms.


PD-124 BOARD(2/2)
LCD DRIVE
-REF.NO.:30000 SERIES-
XX MARK:NO MOUNT
(TRV6/6E/20E MODEL)
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC3101
NEW-DRIVER
IC3101
RB5P004AM1
IC3102
IC3102
CXD3505R-T4
Q3103 NDS356AP
Q3102 UN9213J-(TX).SO
Q3107 2SD2216J-QR(K8).SO
Q3105 XP4601-TXE
Q3106 XP4601-TXE
Q3104 2SB1462J-QR(K8).SO
Q3108 UN9213J-(TX).SO
D3101 MA111-TX
D3102 1T369-01-T8A
D3105 MA111-TX
CN3101 24P
LCD901 LCD
PANEL_13.3V
REG_GND
PANEL_2.8V
PANEL_B
PANEL_G
PANEL_R
HI_SO
XHI_SCK
XCS_PANEL
XVD
SYNC
BL_DET
VG
PSIG
COM_OUT
PWM
BL
XHD_OUT
TO(1/2)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
A B C D E F G H I J K L M

SIGNAL PATH

	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC	➡		
PB	⇨		

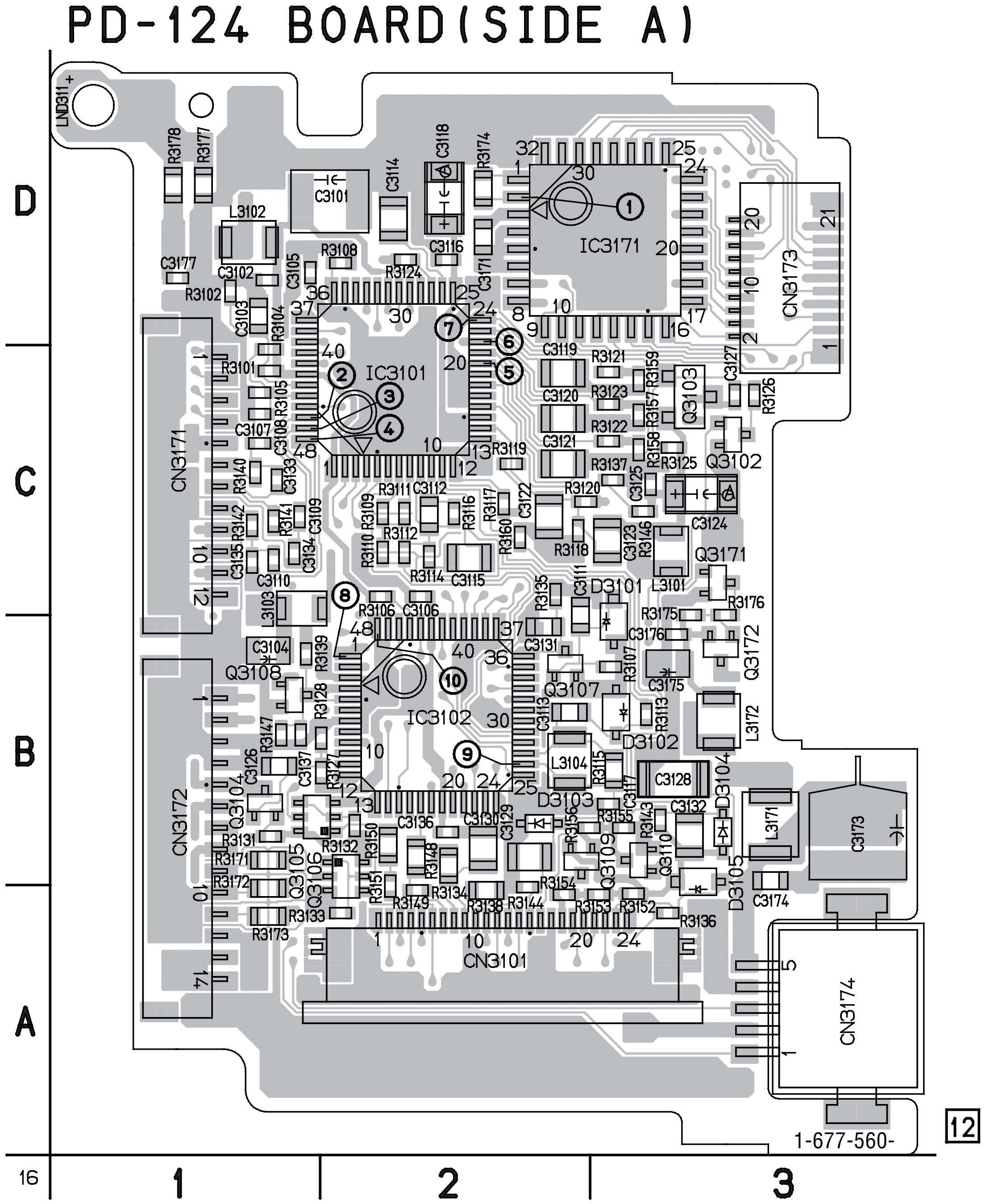
TRV6 MODEL :DCR-TRV6
TRV6E MODEL :DCR-TRV6E
TRV20E MODEL:DCR-TRV20E

*MARKED:MOUNT TABLE

	TRV20E MODEL	TRV6/6E MODEL
C3117	39p 16V CH	47p 16V CH
C3129	1u 10V B	XX
C3132	XX	1u 10V B
D3103	RD2.7UM-T1	XX
D3104	XX	RD3.3UM-T1
L3104	2.2uH ±5%	3.3uH ±5%
R3137	56k	XX
R3143	0	XX
R3144	XX	0
R3146	110k	XX

PD-124 (LCD DRIVE, RGB DRIVE) PRINTED WIRING BOARD

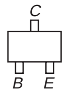
— Ref. No. PD-124 Board; 30,000 Series —


PD-124 BOARD(SIDE A)
D
C
B
A
1
2
3
16
12
1-677-560-
LND311
IC3171
IC3101
IC3102
CN3171
CN3172
CN3173
CN3174
CN3101
Q3102
Q3103
Q3104
Q3105
Q3106
Q3107
Q3108
Q3109
Q3110
Q3171
Q3172
L3101
L3102
L3103
L3104
L3171
L3172
D3101
D3102
D3103
D3104
D3105
C3101
C3128
C3173
C3174

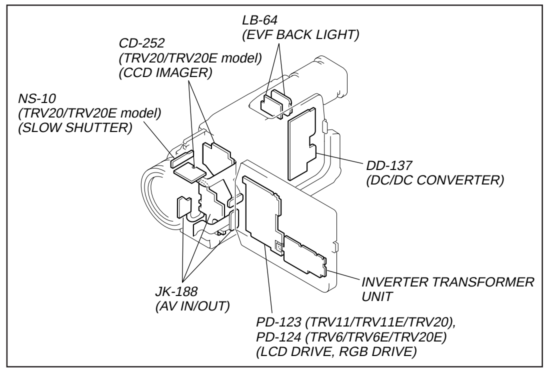
For printed wiring board

- Refer to page 4-126 for parts location.
- This board is four-layer print board. However, the patterns of layers two to four have not been included in the diagram.
- Chip parts

Transistor

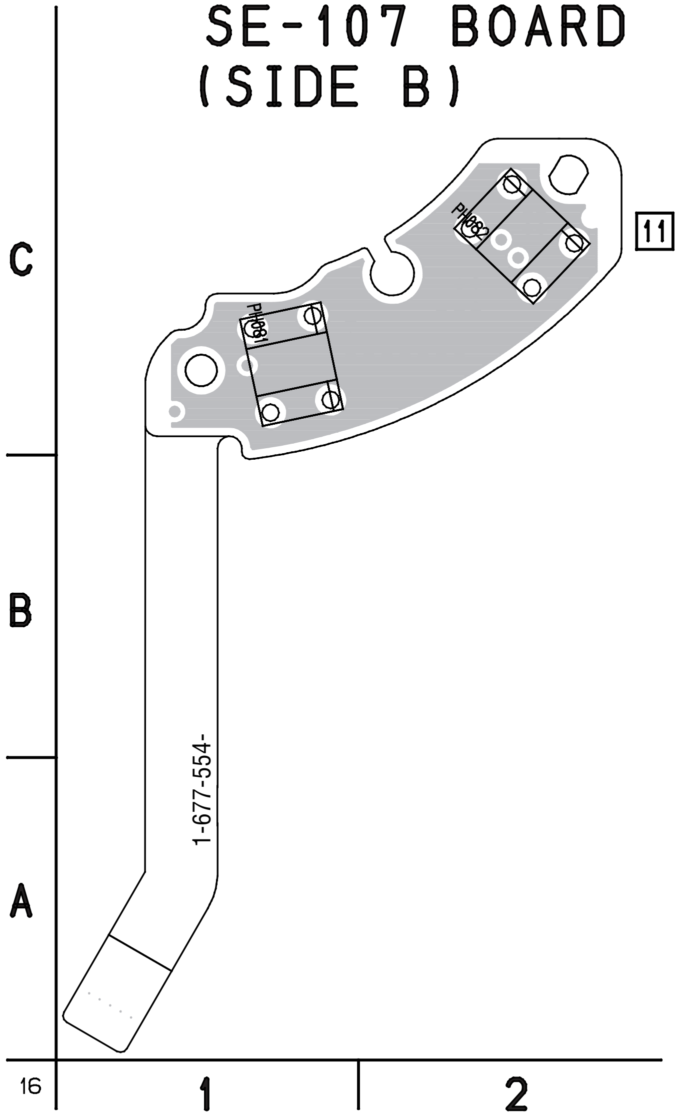


There are few cases that the part printed on this diagram isn't mounted in this model.


LB-64
(EVF BACK LIGHT)
CD-252
(TRV20/TRV20E model)
(CCD IMAGER)
NS-10
(TRV20/TRV20E model)
(SLOW SHUTTER)
DD-137
(DC/DC CONVERTER)
INVERTER TRANSFORMER
UNIT
JK-188
(AV IN/OUT)
PD-123 (TRV11/TRV11E/TRV20),
PD-124 (TRV6/TRV6E/TRV20E)
(LCD DRIVE, RGB DRIVE)

SE-107 (MANUAL FOCUS) PRINTED WIRING BOARD

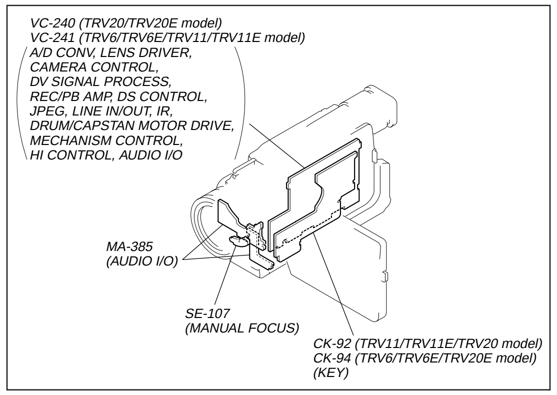
— Ref. No. SE-107 Board; 4,000 Series —


SE-107 BOARD
(SIDE B)
C
B
A
1
2
16
11
PH082
PH081
1-677-554-

For printed wiring board

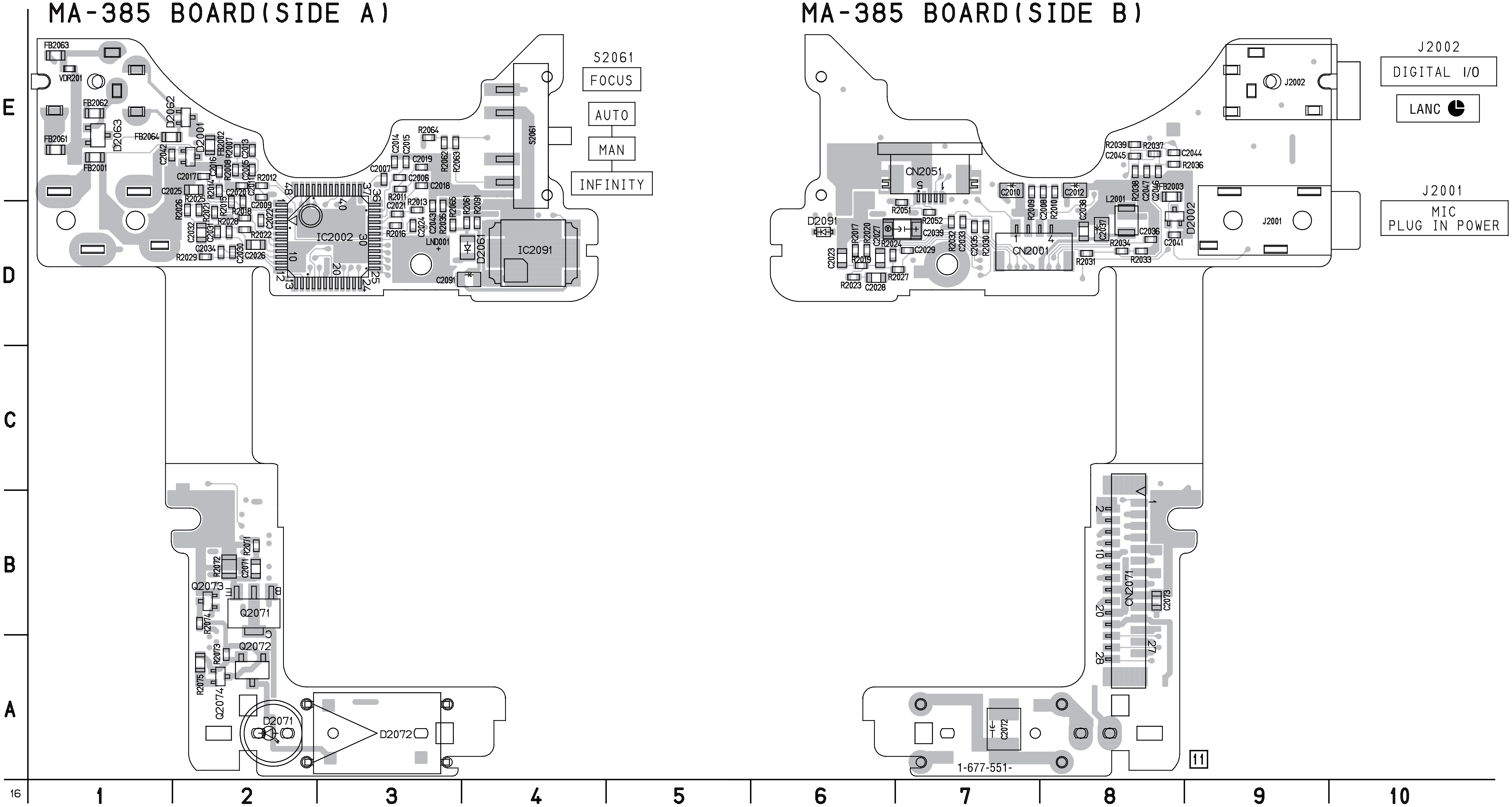
- Refer to page 4-127 for parts location.
- This board is four-layer print board. However, the patterns of layers two to four have not been included in the diagram.

There are few cases that the part printed on this diagram isn't mounted in this model.


VC-240 (TRV20/TRV20E model)
VC-241 (TRV6/TRV6E/TRV11/TRV11E model)
A/D CONV, LENS DRIVER,
CAMERA CONTROL,
DV SIGNAL PROCESS,
REC/PB AMP, DS CONTROL,
JPEG, LINE IN/OUT, IR,
DRUM/CAPSTAN MOTOR DRIVE,
MECHANISM CONTROL,
HI CONTROL, AUDIO I/O
MA-385
(AUDIO I/O)
SE-107
(MANUAL FOCUS)
CK-92 (TRV11/TRV11E/TRV20 model)
CK-94 (TRV6/TRV6E/TRV20E model)
(KEY)

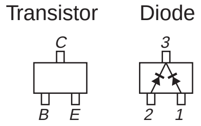
MA-385 (AUDIO I/O) PRINTED WIRING BOARD

— Ref. No. MA-385 Board; 10,000 Series —

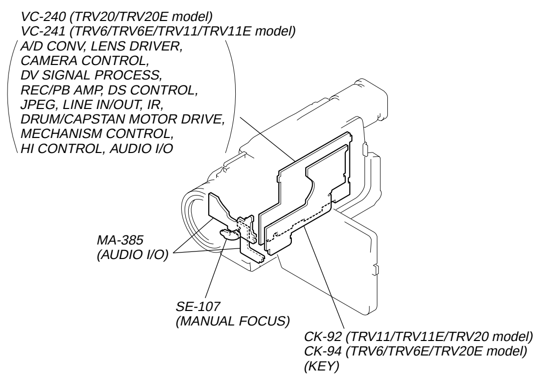

MA-385 BOARD(SIDE A)
MA-385 BOARD(SIDE B)
S2061
FOCUS
AUTO
MAN
INFINITY
IC2002
IC2091
D2061
D2062
D2063
D2001
FB2061
FB2062
FB2063
FB2064
FB2001
FB2002
VDR201
LND001
Q2071
Q2072
Q2073
Q2074
D2071
D2072
J2002
DIGITAL I/O
LANC
J2001
MIC
PLUG IN POWER
CN2051
CN2001
CN2071
D2091
D2002
L2001
FB2003
C2072
C2073
1-677-551-
11
E
D
C
B
A
16
1
2
3
4
5
6
7
8
9
10

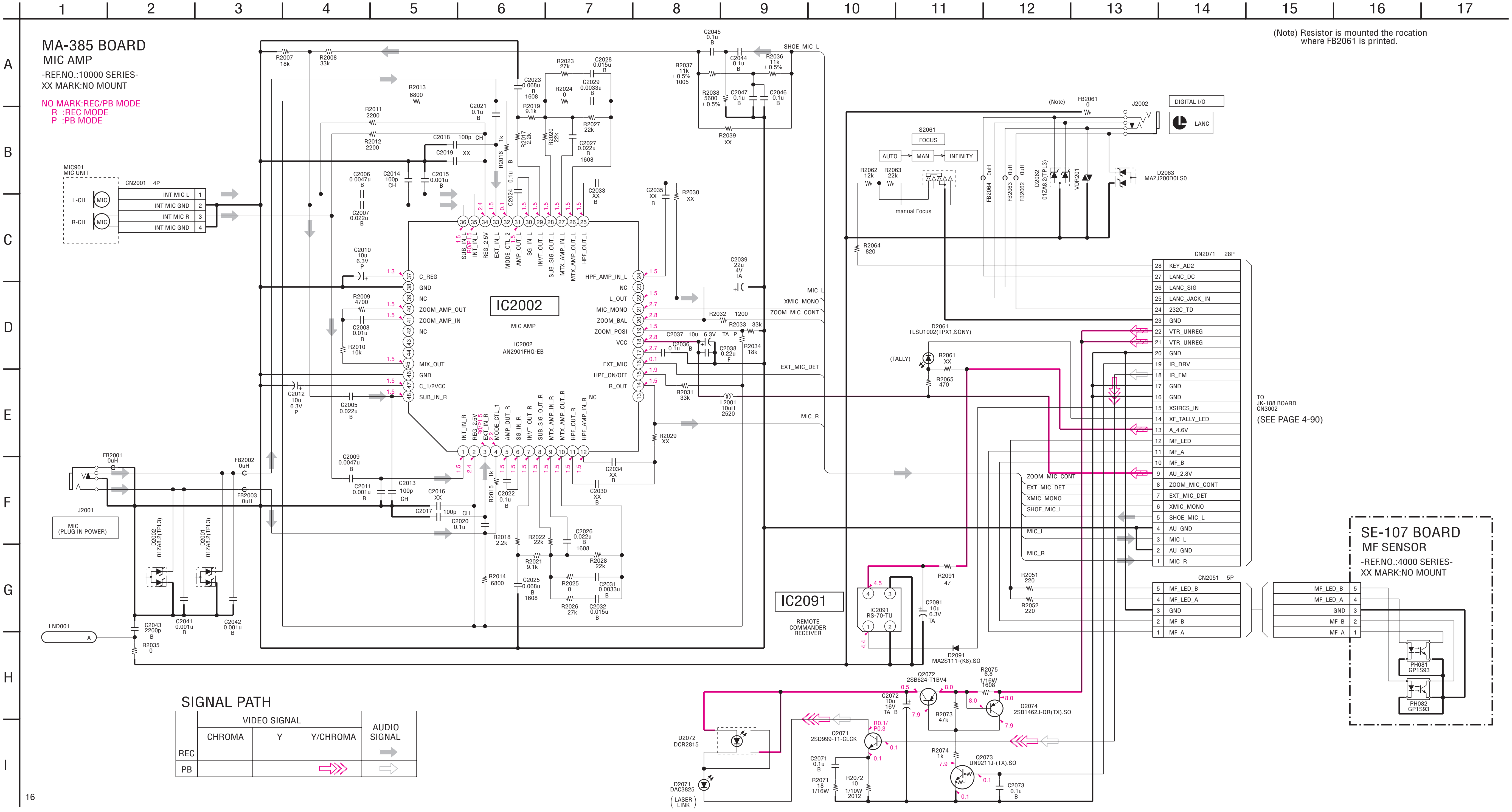
For printed wiring board

- Refer to page 4-127 for parts location.
- This board is four-layer print board. However, the patterns of layers two and three have not been included in the diagram.
- Chip parts


Transistor
Diode
C
B
E
3
2
1

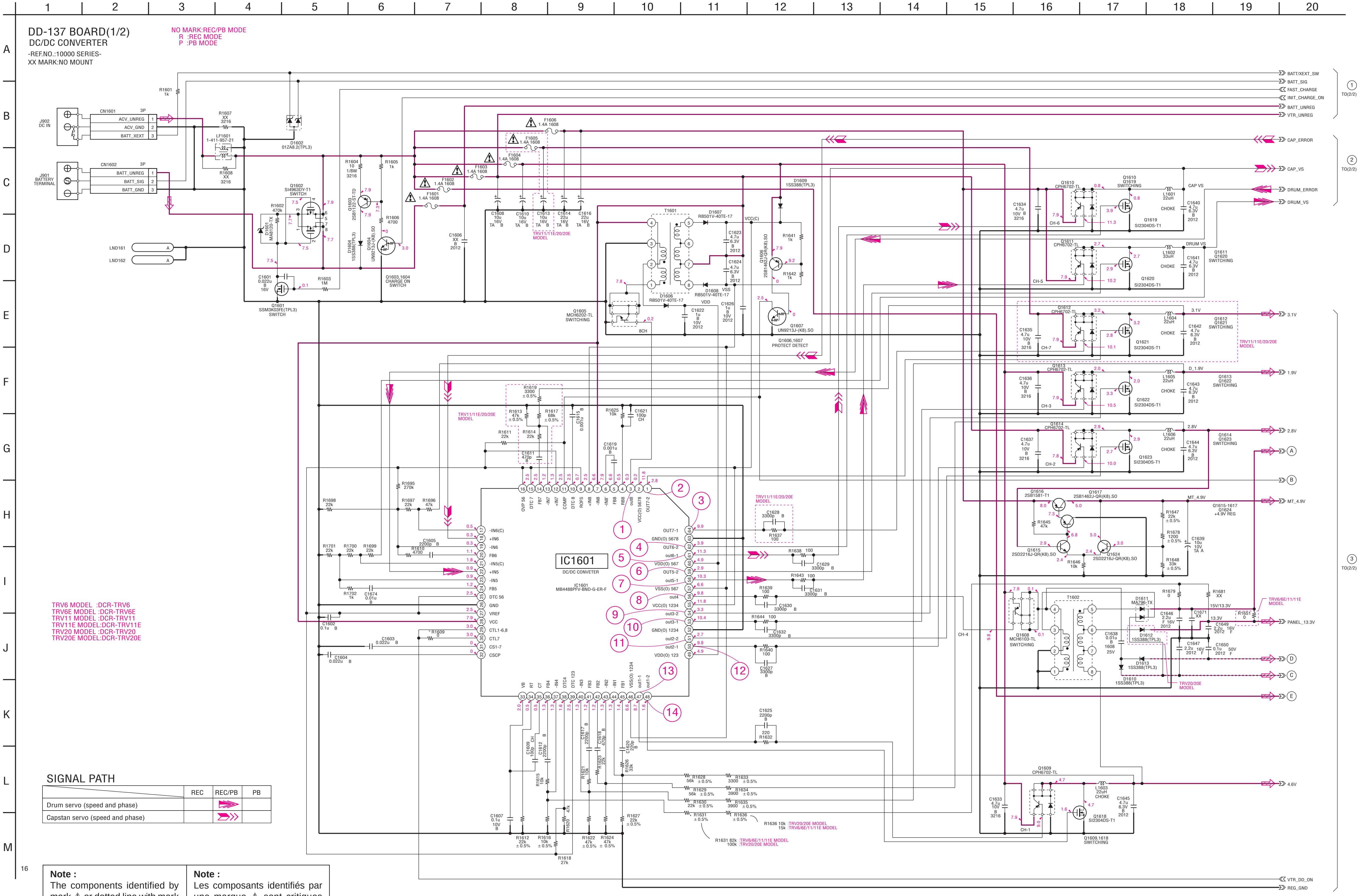
There are few cases that the part printed on this diagram isn't mounted in this model.


VC-240 (TRV20/TRV20E model)
VC-241 (TRV6/TRV6E/TRV11/TRV11E model)
A/D CONV, LENS DRIVER,
CAMERA CONTROL,
DV SIGNAL PROCESS,
REC/PB AMP, DS CONTROL,
JPEG, LINE IN/OUT, IR,
DRUM/CAPSTAN MOTOR DRIVE,
MECHANISM CONTROL,
HI CONTROL, AUDIO I/O
MA-385
(AUDIO I/O)
SE-107
(MANUAL FOCUS)
CK-92 (TRV11/TRV11E/TRV20 model)
CK-94 (TRV6/TRV6E/TRV20E model)
(KEY)


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
A
B
C
D
E
F
G
H
I
MA-385 BOARD
MIC AMP
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
(Note) Resistor is mounted the rocation where FB2061 is printed.
MIC901
MIC UNIT
L-CH
R-CH
MIC
CN2001 4P
INT MIC L
INT MIC GND
INT MIC R
INT MIC GND
IC2002
MIC AMP
IC2002
AN2901FHQ-EB
C_REG
GND
NC
ZOOM_AMP_OUT
ZOOM_AMP_IN
MIX_OUT
C_1/2VCC
SUB_IN_R
HPF_AMP_IN_L
L_OUT
MIC_MONO
ZOOM_BAL
ZOOM_POSI
VCC
EXT_MIC
HPF_ON/OFF
R_OUT
SUB_IN_L
INT_IN_L
REG_2.5V
EXT_IN_L
MODE_CTL_2
AMP_OUT_L
SG_IN_L
INVT_OUT_L
SUB_SIG_OUT_L
MTX_AMP_IN_L
MTX_AMP_OUT_L
HPF_OUT_L
INT_IN_R
REG_2.5V
EXT_IN_R
MODE_CTL_1
AMP_OUT_R
SG_IN_R
INVT_OUT_R
SUB_SIG_OUT_R
MTX_AMP_IN_R
MTX_AMP_OUT_R
HPF_OUT_R
HPF_AMP_IN_R
SHOE_MIC_L
MIC_L
XMIC_MONO
ZOOM_MIC_CONT
EXT_MIC_DET
MIC_R
J2001
MIC
(PLUG IN POWER)
FB2001 0uH
FB2002 0uH
FB2003 0uH
D2002 01ZA8.2(TPL3)
D2001 01ZA8.2(TPL3)
LND001
IC2091
REMOTE COMMANDER RECEIVER
IC2091 RS-70-TU
S2061
FOCUS
AUTO
MAN
INFINITY
manual Focus
J2002
DIGITAL I/O
LANC
FB2061 0
D2063 MAZJ200D0LS0
D2062 01ZA8.2(TPL3)
VDR201
D2061 TLSU1002(TPX1,SONY)
(TALLY)
CN2071 28P
KEY_AD2
LANC_DC
LANC_SIG
LANC_JACK_IN
232C_TD
GND
VTR_UNREG
IR_DRV
IR_EM
XSIRCS_IN
XF_TALLY_LED
A_4.6V
MF_LED
MF_A
MF_B
AU_2.8V
ZOOM_MIC_CONT
EXT_MIC_DET
XMIC_MONO
SHOE_MIC_L
AU_GND
MIC_L
MIC_R
TO JK-188 BOARD CN3002
(SEE PAGE 4-90)
CN2051 5P
MF_LED_B
MF_LED_A
MF_B
MF_A
SE-107 BOARD
MF SENSOR
-REF.NO.:4000 SERIES-
XX MARK:NO MOUNT
PH081 GP1S93
PH082 GP1S93
Q2072 2SB624-T1BV4
Q2074 2SB1462J-QR(TX).SO
Q2071 2SD999-T1-CLCK
Q2073 UN9211J-(TX).SO
D2091 MA2S111-(K8).SO
D2072 DCR2815
D2071 DAC3825
(LASER LINK)
SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC				➡
PB			⇛	⇨

For Schematic Diagram
- Refer to page 4-111 for printed wiring board.
- Refer to page 4-115 for waveforms.


DD-137 BOARD(1/2)
DC/DC CONVERTER
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
J902 DC IN
J901 BATTERY TERMINAL
CN1601
CN1602
ACV_UNREG
ACV_GND
BATT_XEXT
BATT_UNREG
BATT_SIG
BATT_GND
LND161
LND162
Q1601 SSM3K03FE(TPL3) SWITCH
Q1602 SI4963DY-T1 SWITCH
Q1603,1604 CHARGE ON SWITCH
Q1605 MCH6202-TL SWITCHING
Q1606,1607 PROTECT DETECT
T1601
T1602
IC1601
DC/DC CONVETER
IC1601 MB4488PFV-BND-G-ER-F
Q1608 MCH6103-TL SWITCHING
Q1609,1618 SWITCHING
Q1610 Q1619 SWITCHING
Q1611 Q1620 SWITCHING
Q1612 Q1621 SWITCHING
Q1613 Q1622 SWITCHING
Q1614 Q1623 SWITCHING
Q1615-1617 Q1624 +4.9V REG
TRV11/11E/20/20E MODEL
TRV20/20E MODEL
TRV6/6E/11/11E MODEL
TRV6 MODEL :DCR-TRV6
TRV6E MODEL :DCR-TRV6E
TRV11 MODEL :DCR-TRV11
TRV11E MODEL:DCR-TRV11E
TRV20 MODEL :DCR-TRV20
TRV20E MODEL:DCR-TRV20E
BATT/XEXT_SW
BATT_SIG
FAST_CHARGE
INIT_CHARGE_ON
BATT_UNREG
VTR_UNREG
CAP_ERROR
CAP_VS
DRUM_ERROR
DRUM_VS
3.1V
1.9V
2.8V
MT_4.9V
PANEL_13.3V
4.6V
VTR_DD_ON
REG_GND
TO(2/2)
A
B
C
D
E
①
②
③
SIGNAL PATH
16

	REC	REC/PB	PB
Drum servo (speed and phase)		➡	
Capstan servo (speed and phase)		➡	

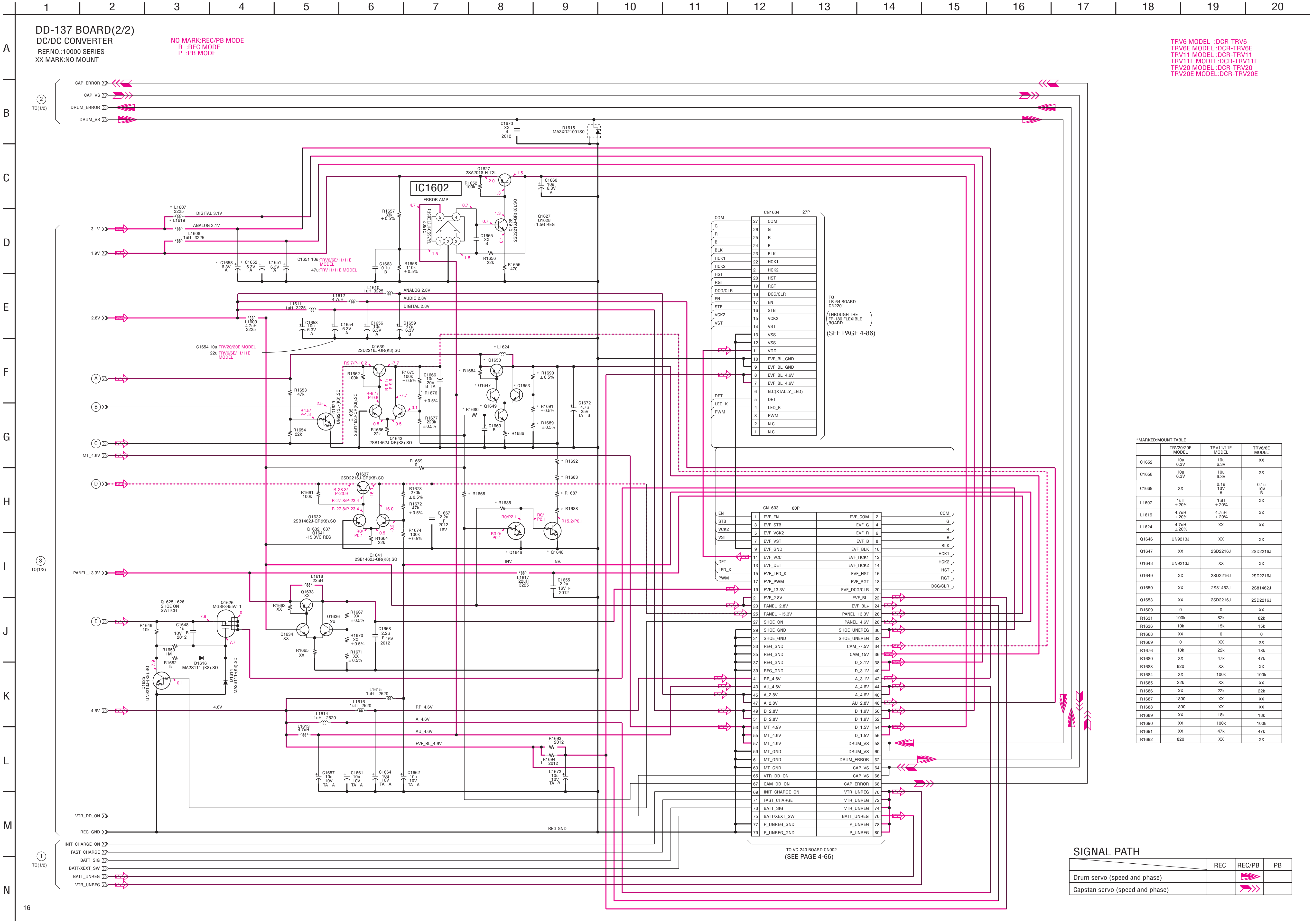
Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note :
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

DC/DC CONVERTER
DD-137 (1/2)

For Schematic Diagram

- Refer to page 4-111 for printed wiring board.


DD-137 BOARD(2/2)
DC/DC CONVERTER
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
TRV6 MODEL :DCR-TRV6
TRV6E MODEL :DCR-TRV6E
TRV11 MODEL :DCR-TRV11
TRV11E MODEL:DCR-TRV11E
TRV20 MODEL :DCR-TRV20
TRV20E MODEL:DCR-TRV20E
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
A
B
C
D
E
F
G
H
I
J
K
L
M
N
CAP_ERROR
CAP_VS
DRUM_ERROR
DRUM_VS
② TO(1/2)
3.1V
1.9V
2.8V
Ⓐ
Ⓑ
Ⓒ
MT_4.9V
Ⓓ
PANEL_13.3V
③ TO(1/2)
Ⓔ
4.6V
VTR_DD_ON
REG_GND
INIT_CHARGE_ON
FAST_CHARGE
BATT_SIG
BATT/XEXT_SW
BATT_UNREG
VTR_UNREG
① TO(1/2)
C1670 XX B 2012
D1615 MA3X021001S0
Q1627 2SA2018-H-T2L
R1652 100k
C1660 10u 6.3V A
IC1602
ERROR AMP
IC1602 TA75S01F(TE85R)
R1657 33k ±0.5%
Q1628 2SD2216J-QR(K8).SO
Q1627 Q1628 +1.5G REG
C1665 XX B
R1656 22k
R1655 470
R1658 110k ±0.5%
C1663 0.1u B
L1607 3225
L1619
DIGITAL 3.1V
ANALOG 3.1V
L1608 1uH 3225
C1658 6.3V A
C1652 6.3V A
C1651 6.3V A
C1651 10u:TRV6/6E/11/11E MODEL
47u:TRV11/11E MODEL
L1610 1uH 3225
ANALOG 2.8V
AUDIO 2.8V
DIGITAL 2.8V
L1612 4.7uH
L1611 1uH 3225
L1609 4.7uH 3225
C1653 10u 6.3V A
C1654 6.3V A
C1656 10u 6.3V A
C1659 47u 6.3V B
C1654 10u:TRV20/20E MODEL
22u:TRV6/6E/11/11E MODEL
Q1639 2SD2216J-QR(K8).SO
L1624
R1653 47k
R1654 22k
R1662 100k
Q1629 UN9213J-(K8).SO
Q1635 2SB1462J-QR(K8).SO
R1675 100k ±0.5%
C1666 10u 20V B TA
R1676 ±0.5%
R1677 220k ±0.5%
R1666 22k
Q1643 2SB1462J-QR(K8).SO
R1684
Q1650
Q1647
Q1653
R1690 ±0.5%
R1680
Q1649
C1669 B
R1686
R1691 ±0.5%
R1689 ±0.5%
C1672 4.7u 25V TA B
R1669 0
R1692
R1683
R1687
R1688
Q1637 2SD2216J-QR(K8).SO
R1661 100k
R1673 270k ±0.5%
R1672 47k ±0.5%
C1667 2.2u F 2012 16V
R1674 100k ±0.5%
R1664 22k
Q1632 2SB1462J-QR(K8).SO
Q1632,1637 Q1641 -15.3VG REG
Q1641 2SB1462J-QR(K8).SO
R1668
R1685
Q1646 INV.
Q1648 INV.
L1617 22uH 3225
C1655 2.2u 16V F 2012
Q1625,1626 SHOE ON SWITCH
Q1626 MGSF3455VT1
R1649 10k
C1648 1u 10V B 2012
R1650 1M
R1682 1k
D1616 MA2S111-(K8).SO
Q1625 UN9213J-(K8).SO
D1614 MA2S111-(K8).SO
L1618 22uH
Q1633 XX
R1663 XX
Q1634 XX
Q1636 XX
R1665 XX
R1667 XX ±0.5%
R1670 XX ±0.5%
R1671 XX ±0.5%
C1668 2.2u F 16V 2012
L1615 1uH 2520
L1616 1uH 2520
L1614 1uH 2520
L1613 4.7uH
RP_4.6V
A_4.6V
AU_4.6V
EVF_BL_4.6V
R1693 1 2012
R1694 1 2012
C1673 10u 10V TA A
C1657 10u 10V TA A
C1661 10u 10V TA A
C1664 10u 10V TA A
C1662 10u 10V TA A
REG GND
CN1604 27P
COM
G
R
B
BLK
HCK1
HCK2
HST
RGT
DCG/CLR
EN
STB
VCK2
VST
VSS
VDD
EVF_BL_GND
EVF_BL_4.6V
N.C(XTALLY_LED)
DET
LED_K
PWM
N.C
TO LB-64 BOARD CN2201
THROUGH THE FP-180 FLEXIBLE BOARD
(SEE PAGE 4-86)
CN1603 80P
EVF_EN
EVF_COM
EVF_STB
EVF_G
EVF_VCK2
EVF_R
EVF_VST
EVF_B
EVF_GND
EVF_BLK
EVF_VCC
EVF_HCK1
EVF_DET
EVF_HCK2
EVF_LED_K
EVF_HST
EVF_PWM
EVF_RGT
EVF_13.3V
EVF_DCG/CLR
EVF_2.8V
EVF_BL-
PANEL_2.8V
EVF_BL+
PANEL_-15.3V
PANEL_13.3V
SHOE_ON
PANEL_4.6V
SHOE_GND
SHOE_UNEREG
REG_GND
CAM_-7.5V
CAM_15V
D_3.1V
RP_4.6V
A_3.1V
AU_4.6V
A_4.6V
A_2.8V
AU_2.8V
D_2.8V
D_1.9V
MT_4.9V
D_1.5V
DRUM_VS
MT_GND
DRUM_ERROR
CAP_VS
VTR_DD_ON
CAM_DD_ON
CAP_ERROR
INIT_CHARGE_ON
VTR_UNREG
FAST_CHARGE
BATT_SIG
BATT/XEXT_SW
BATT_UNREG
P_UNREG_GND
P_UNREG
TO VC-240 BOARD CN002
(SEE PAGE 4-66)
16

*MARKED:MOUNT TABLE

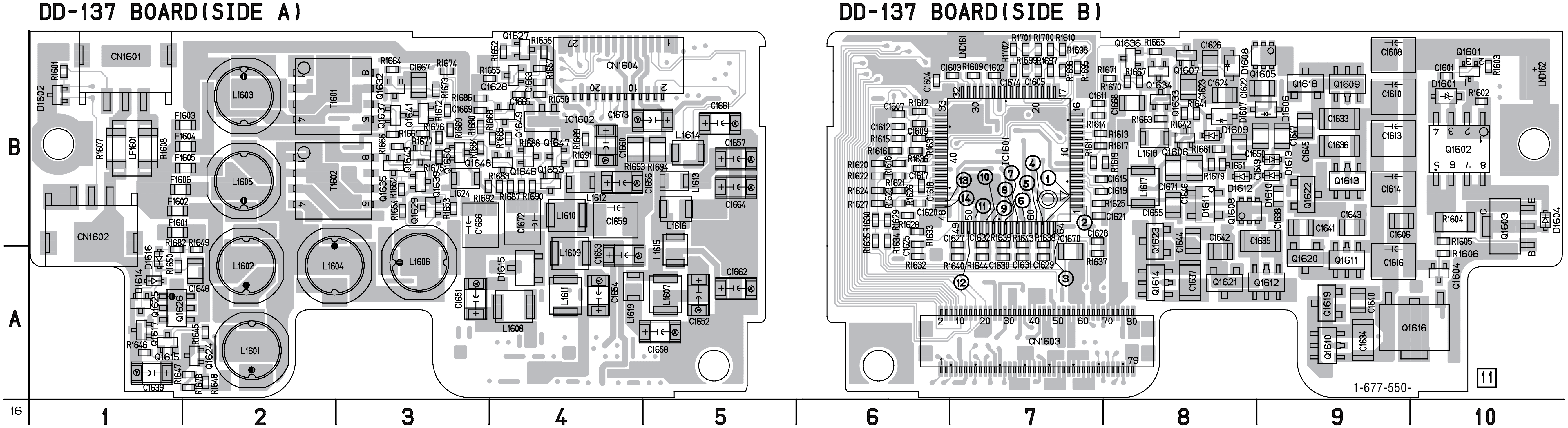
	TRV20/20E MODEL	TRV11/11E MODEL	TRV6/6E MODEL
C1652	10u 6.3V	10u 6.3V	XX
C1658	10u 6.3V	10u 6.3V	XX
C1669	XX	0.1u 10V B	0.1u 10V B
L1607	1uH ±20%	1uH ±20%	XX
L1619	4.7uH ±20%	4.7uH ±20%	XX
L1624	4.7uH ±20%	XX	XX
Q1646	UN9213J	XX	XX
Q1647	XX	2SD2216J	2SD2216J
Q1648	UN9213J	XX	XX
Q1649	XX	2SD2216J	2SD2216J
Q1650	XX	2S81462J	2S81462J
Q1653	XX	2SD2216J	2SD2216J
R1609	0	0	XX
R1631	100k	82k	82k
R1636	10k	15k	15k
R1668	XX	0	0
R1669	0	XX	XX
R1676	10k	22k	18k
R1680	XX	47k	47k
R1683	820	XX	XX
R1684	XX	100k	100k
R1685	22k	XX	XX
R1686	XX	22k	22k
R1687	1800	XX	XX
R1688	1800	XX	XX
R1689	XX	18k	18k
R1690	XX	100k	100k
R1691	XX	47k	47k
R1692	820	XX	XX

SIGNAL PATH

	REC	REC/PB	PB
Drum servo (speed and phase)		➡	
Capstan servo (speed and phase)		⇛	

DD-137 (DC/DC CONVERTER) PRINTED WIRING BOARD

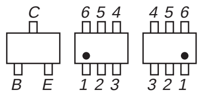
— Ref. No. DD-137 Board; 10,000 Series —


DD-137 BOARD(SIDE A)
DD-137 BOARD(SIDE B)
B
A
16
1
2
3
4
5
6
7
8
9
10
CN1601
CN1602
CN1603
CN1604
IC1601
IC1602
T1601
T1602
L1601
L1602
L1603
L1604
L1605
L1606
Q1601
Q1602
Q1603
Q1616
1-677-550-
11

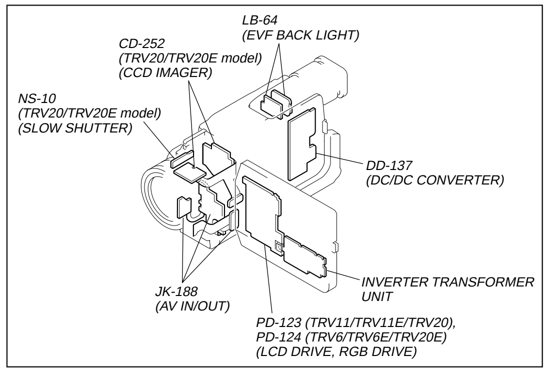
For printed wiring board

- Refer to page 4-127 for parts location.
- This board is four-layer print board. However, the patterns of layers two to four have not been included in the diagram.
- Chip parts

Transistor


C
B
E
6 5 4
1 2 3
4 5 6
3 2 1

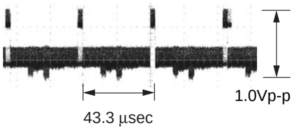
There are few cases that the part printed on this diagram isn’t mounted in this model.


LB-64
(EVF BACK LIGHT)
CD-252
(TRV20/TRV20E model)
(CCD IMAGER)
NS-10
(TRV20/TRV20E model)
(SLOW SHUTTER)
DD-137
(DC/DC CONVERTER)
INVERTER TRANSFORMER
UNIT
JK-188
(AV IN/OUT)
PD-123 (TRV11/TRV11E/TRV20),
PD-124 (TRV6/TRV6E/TRV20E)
(LCD DRIVE, RGB DRIVE)

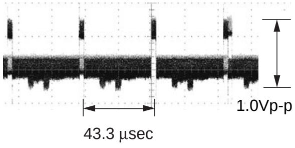
4-3. WAVEFORMS

CD-252 BOARD
CAMERA REC

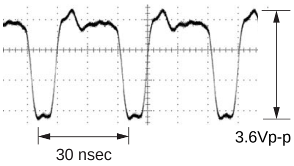
① Q102 Ⓔ



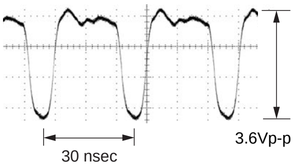
② IC104 ⑪



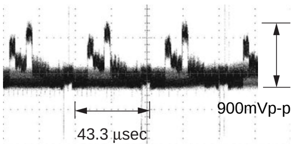
③ IC104 ⑬



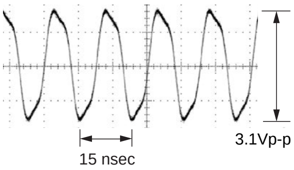
④ IC104 ⑭



⑤ IC104 ⑤

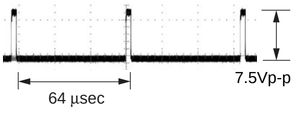


⑥ IC102 ㉙

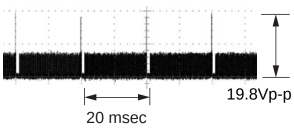


FP-219 BOARD

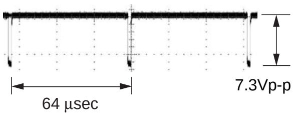
① IC3000 ①



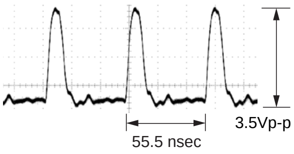
② IC3000 ②



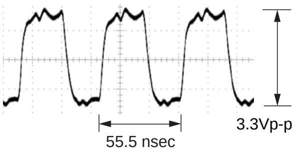
③ IC3000 ③,④



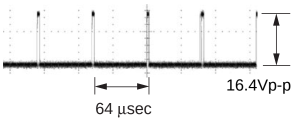
④ IC3000 ⑩



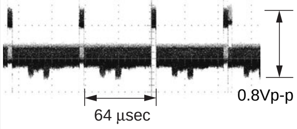
⑤ IC3000 ⑪,⑫



⑥ IC3000 ⑬

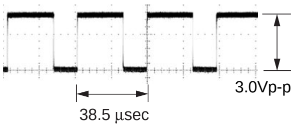


⑦ Q3000 Ⓔ



PD-123 BOARD (1/2)
REC/PB

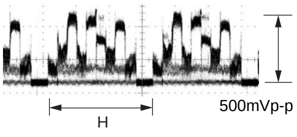
① IC2171 ②



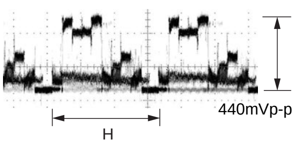
PD-123 BOARD (2/2)

REC/PB

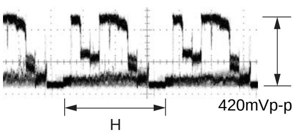
② IC2104 ㊻



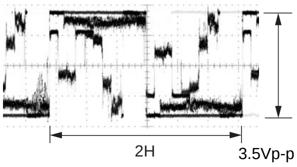
③ IC2104 ㊼



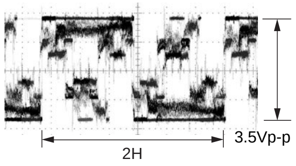
④ IC2104 ㊽



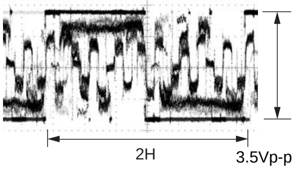
⑤ IC2104 ⑳



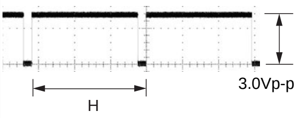
⑥ IC2104 ㉒



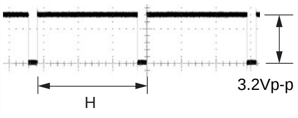
⑦ IC2104 ㉔



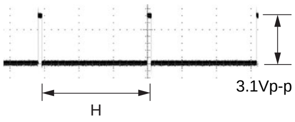
⑧ IC2105 ①



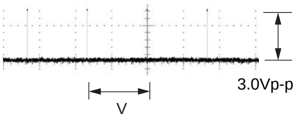
⑨ IC2105 ⑭



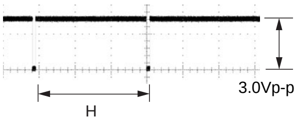
⑩ IC2105 ⑮



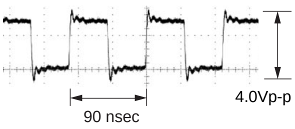
⑪ IC2105 ⑱



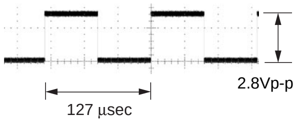
⑫ IC2105 ㉑



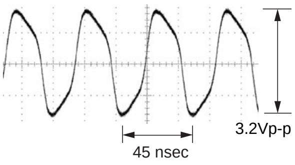
⑬ IC2105 ㉓



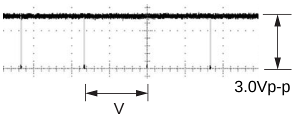
⑭ IC2105 ㉔



⑮ IC2105 ㉖



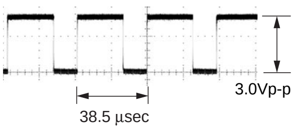
⑯ IC2105 ㊽



PD-124 BOARD (1/2)

REC/PB

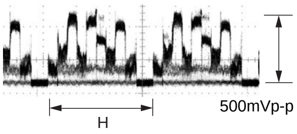
① IC3171 ②



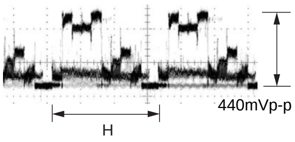
PD-124 BOARD (2/2)

REC/PB

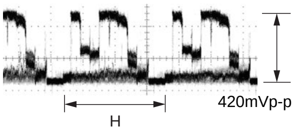
② IC3101 ㊻



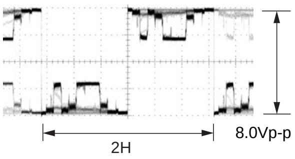
③ IC3101 ㊼



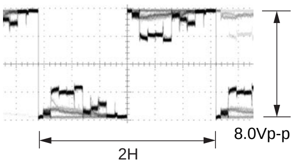
④ IC3101 ㊽



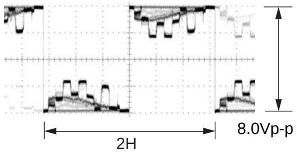
⑤ IC3101 ⑳



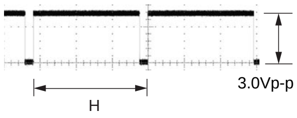
⑥ IC3101 ㉒



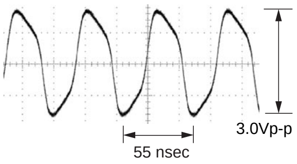
⑦ IC3101 ㉔



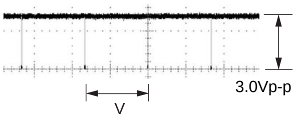
⑧ IC3102 ①



⑨ IC3102 ㉖



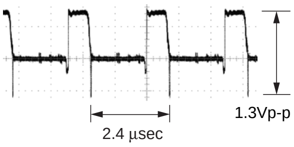
⑩ IC3102 ㊽



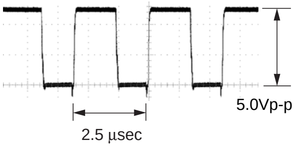
DD-137 BOARD (1/2)

REC/PB

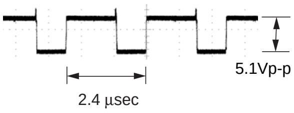
① IC1601 ③



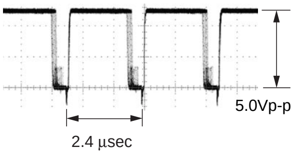
② IC1601 ①



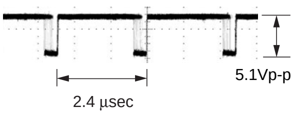
③ IC1601 ⑭



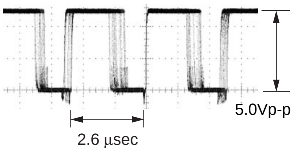
④ IC1601 ⑥②



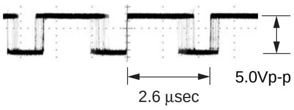
⑤ IC1601 ⑥①



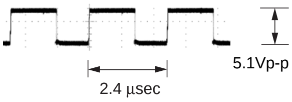
⑥ IC1601 (59)



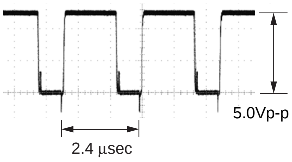
⑦ IC1601 (58)



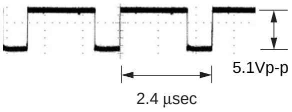
⑧ IC1601 (56)



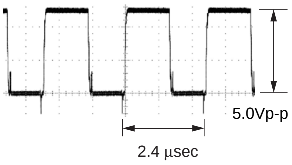
⑨ IC1601 (54)



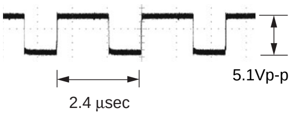
⑩ IC1601 (53)



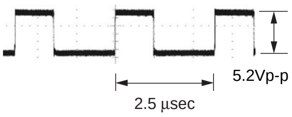
⑪ IC1601 (51)



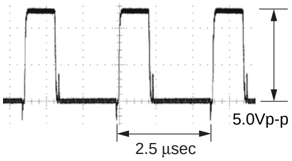
⑫ IC1601 (50)



⑬ IC1601 (47)



⑭ IC1601 (48)



Waveforms and parts location of the VC-240/241 board are not shown.
Pages from 4-116 to 4-123 are not shown.

4-4. MOUNTED PARTS LOCATION

NS-10 BOARD (SIDE A)

R001	A-1
S001	A-1

CD-252 BOARD (SIDE A)

C101	C-5
C102	C-5
C103	D-5
C104	C-5
C105	C-5
C106	C-6
C107	C-5
C108	C-5
C109	C-5
C110	D-5
C111	D-6
C112	D-6
C113	C-4
C114	C-7
C116	B-6
C118	B-5
C119	C-7
C120	B-6
C122	B-5
C124	C-6
C125	D-6
C126	C-6
C127	C-6
C128	B-5
C129	B-5
C130	B-5
C131	B-5
C132	C-5
C151	E-1
C152	E-1
CN151	E-1
CN152	E-1
D101	D-5
FB101	D-5
FB102	D-5
FB103	C-6
FB104	C-6
FB105	C-6
FB106	B-4
FB108	C-5
FB109	D-6
IC102	C-5
IC103	C-6
IC104	B-5
L101	C-5
L103	C-6
L104	C-6
L105	B-5
L151	E-1
Q101	C-6
Q102	C-5
Q103	C-4
Q104	C-4
R102	D-6
R104	C-6
R105	C-6
R106	C-6
R107	D-5
R108	C-6
R109	D-6
R112	C-4
R113	B-6
R114	C-4
R122	C-5
R123	B-6
R151	E-1
X101	D-5

CD-252 BOARD (SIDE B)

CN101	A-11
IC101	C-10

CK-92 BOARD (SIDE A)

CN3202	B-2	S3203	E-6
		S3204	A-2
R3202	E-6	S3205	E-5
R3205	D-6	S3206	D-6
R3206	A-5	S3207	C-5
R3207	E-5	S3208	B-6
R3208	D-6	S3209	D-5
R3209	C-5	S3210	C-6
R3210	B-5	S3211	D-7
R3211	D-6	S3212	D-7
R3212	C-5	S3213	B-5
R3213	C-6	S3214	D-6
R3214	E-7	S3215	E-7
R3215	B-5	S3216	C-7
R3216	C-6	S3217	D-5
		S3218	B-5
S3201	B-1		
S3202	A-1		

CK-94 BOARD (SIDE A)

CN3202	B-2	S3203	E-6
		S3204	A-1
R3202	E-6	S3205	E-5
R3205	D-6	S3206	D-6
R3206	B-5	S3207	C-5
R3207	E-5	S3208	B-6
R3208	D-6	S3209	D-5
R3209	C-5	S3210	C-6
R3210	B-5	S3211	D-7
R3211	D-6	S3212	D-7
R3212	C-5	S3213	B-5
R3213	C-6	S3214	D-6
R3214	E-7	S3215	E-7
R3215	B-5	S3216	C-7
R3216	C-6	S3217	D-5
		S3218	B-5
S3201	B-1		
S3202	A-1		

CK-92 BOARD (SIDE B)

BT3201	D-10	D3201	B-10
		D3202	B-10
C3201	B-13	D3203	B-10
C3202	B-14	D3204	B-10
C3203	B-13		
		R3201	B-13
CN3201	B-13	R3203	A-14
CN3203	B-10	R3204	E-10
CN3204	E-10	R3217	B-10
CN3205	B-12		
CN3206	B-11		

CK-94 BOARD (SIDE B)

BT3201	C-10	D3201	B-10
		D3202	B-10
C3201	B-13	D3203	B-10
C3202	B-14	D3204	B-10
C3203	B-13		
		R3201	B-13
CN3201	B-13	R3203	A-14
CN3203	B-10	R3204	E-10
CN3204	E-10	R3217	B-10
CN3205	B-11		
CN3206	B-11		

LB-64 BOARD (SIDE A)

C2201	C-1
CN2201	C-1
D2202	A-1
IC2201	C-1
L2201	C-2
L2202	C-2
ND2201	A-1
Q2201	C-1
R2202	C-2
R2205	C-1

LB-64 BOARD (SIDE B)

C2202	C-3
C2203	C-3
C2204	C-3
CN2202	C-3
R2203	C-4
R2204	C-4
T2201	A-3

JK-188 BOARD (SIDE A)

C3063	E-3
C3064	D-3
C3066	E-3
C3067	E-3
J3001	C-5
J3002	D-4
J3003	E-4
J3004	F-4
L3052	E-3
SE3051	C-3
SE3052	D-2

JK-188 BOARD (SIDE B)

C3051	C-10
C3052	C-10
C3053	C-9
C3054	E-9
C3055	D-10
C3056	C-10
C3057	D-10
C3058	D-10
C3059	D-10
C3060	D-9
C3061	D-10
C3062	D-10
C3065	D-9
CN3001	A-11
D3001	C-7
FB3004	F-9
FB3005	E-8
FB3007	D-9
FB3008	D-9
IC3051	E-10
R3001	C-8
R3002	B-8
R3003	C-8
R3004	E-9
R3005	D-8
R3051	D-10
R3052	C-10
R3053	C-10
R3054	D-10
R3055	E-10
R3056	E-9
R3057	E-10
R3058	E-9
R3059	E-9
R3060	E-10
R3061	C-10
VDR001	F-9
VDR002	E-8
VDR003	D-8
VDR004	D-9
VDR005	C-8
VDR006	C-8
VDR007	E-9

PD-123 BOARD (SIDE A)

C2101	B-1
C2102	A-1
C2103	A-2
C2104	A-2
C2105	A-2
C2106	B-2
C2107	B-2
C2108	C-2
C2109	B-2
C2110	B-2
C2111	C-2
C2112	B-1
C2113	B-2
C2114	B-2
C2115	B-1
C2116	C-2
C2117	B-3
C2118	C-3
C2119	B-2
C2120	B-2
C2121	B-2
C2122	B-3
C2123	C-3
C2124	C-4
C2125	A-3
C2127	B-3
C2128	B-3
C2129	B-1
C2130	A-4
C2131	B-9
C2132	A-3
C2133	A-2
C2134	A-2
C2135	A-2
C2172	C-3
C2173	C-4
C2174	C-3
C2175	C-3
C2180	B-1
C2182	A-1
CN2101	B-12
CN2173	A-3
CN2174	C-4
CN2175	C-1
CN2176	A-2
D2101	B-2
D2102	B-3
D2103	B-10
IC2104	B-2
IC2105	B-3
IC2106	C-3
IC2171	C-1
L2101	B-1
L2102	C-2
L2103	C-2
L2104	C-2
L2105	B-3
L2172	C-3
L2173	C-2
Q2102	C-3
Q2103	B-3
Q2104	B-3
Q2105	B-3
Q2106	A-3
Q2107	B-2
Q2108	A-3
Q2172	C-3
Q2173	C-3
R2101	A-3
R2103	B-3
R2105	A-1
R2106	A-2
R2107	A-2
R2108	A-2
R2109	A-2
R2111	B-2
R2112	B-1
R2113	B-2
R2114	B-2
R2116	B-2
R2117	B-2
R2118	B-2
R2119	B-2
R2120	B-3
R2121	B-3
R2122	B-5
R2123	A-3
R2124	B-8
R2125	B-3
R2126	B-4
R2127	B-3
R2129	B-3
R2133	B-7
R2134	B-6
R2135	C-4
R2140	B-3
R2141	A-3
R2142	B-2
R2143	A-1
R2144	C-3
R2145	C-3
R2146	A-4
R2147	B-3
R2148	B-3
R2149	A-3
R2150	A-3
R2151	B-11
R2152	A-2
R2153	A-2
R2154	A-2
R2175	C-3
R2176	C-3
R2177	A-1
R2178	A-1
R2180	B-1

PD-124 BOARD (SIDE A)

C3101	D-2
C3102	D-1
C3103	D-1
C3104	B-1
C3105	D-1
C3106	C-2
C3107	C-1
C3108	C-1
C3109	C-1
C3110	C-1
C3111	C-2
C3112	C-2
C3113	B-2
C3114	D-2
C3115	C-2
C3116	D-2
C3117	B-3
C3118	D-2
C3119	C-2
C3120	C-2
C3121	C-2
C3122	C-2
C3123	C-3
C3124	C-3
C3125	C-3
C3126	B-1
C3127	C-3
C3128	B-3
C3130	B-2
C3131	B-2
C3132	B-3
C3133	C-1
C3134	C-1
C3135	C-1
C3136	B-2
C3137	B-1
C3171	D-2
C3173	B-3
C3174	B-3
C3175	B-3
C3176	B-3
C3177	D-1
CN1374	A-3
CN3101	A-2
CN3171	C-1
CN3172	B-1
CN3173	D-3
D3101	B-3
D3102	B-3
D3103	B-2
D3104	B-3
D3105	B-3
IC3101	C-2
IC3102	B-2
IC3171	D-3
L3101	C-3
L3102	D-1
L3103	C-1
L3104	B-2
L3171	B-3
L3172	B-3
Q3102	C-3
Q3103	C-3
Q3104	B-1
Q3105	B-1
Q3106	A-2
Q3107	B-2
Q3108	B-1
Q3109	B-2
Q3110	B-3
Q3171	C-3
Q3172	B-3
R3101	C-1
R3102	D-1
R3104	C-1
R3105	C-1
R3106	C-2
R3107	B-3
R3108	D-2
R3109	C-2
R3110	C-2
R3111	C-2
R3112	C-2
R3113	B-3
R3114	C-2
R3115	B-3
R3116	C-2
R3117	C-2
R3118	C-2
R3119	C-2
R3120	C-2
R3121	C-3
R3122	C-3
R3123	C-3
R3124	D-2
R3125	C-3
R3126	C-3
R3127	B-2
R3128	B-2
R3131	B-1
R3132	B-2
R3133	A-2
R3135	C-2
R3136	A-3
R3137	C-3
R3138	A-2
R3139	B-1
R3140	C-1
R3141	C-1
R3142	C-1
R3143	B-3
R3144	A-2
R3146	C-3
R3147	B-1
R3148	B-2
R3149	A-2
R3150	B-2
R3151	B-2
R3151	B-2
R3152	A-3
R3153	A-3
R3154	A-2
R3155	B-3
R3156	B-2
R3157	C-3
R3158	C-3
R3159	C-3
R3160	C-2
R3171	B-1
R3172	A-1
R3173	A-1
R3174	D-2
R3175	C-3
R3176	C-3
R3177	D-1
R3178	D-1

SE-107 BOARD (SIDE A)

PH081	C-1
PH082	C-2

MA-385 BOARD (SIDE A)

C2005	E-2
C2006	E-3
C2007	E-3
C2009	D-2
C2011	E-2
C2014	E-3
C2015	E-3
C2017	E-2
C2018	E-3
C2019	E-3
C2020	E-2
C2021	D-3
C2022	D-2
C2024	D-3
C2025	E-2
C2026	D-2
C2030	D-2
C2031	D-2
C2032	D-2
C2034	D-2
C2042	E-1
C2043	D-3
C2071	B-2
C2091	D-4
C2103	E-2
C2106	E-2
D2001	E-2
D2061	D-4
D2062	E-2
D2063	E-1
D2071	A-2
D2072	A-3
FB2001	E-1
FB2002	E-2
FB2061	E-1
FB2062	E-1
FB2063	E-1
FB2064	E-1
IC2002	D-3
IC2091	D-4
Q2071	B-2
Q2072	A-2
Q2073	B-2
Q2074	A-2
R2007	E-2
R2008	E-2
R2011	E-3
R2012	E-2
R2013	D-3
R2014	E-2
R2015	D-2
R2016	D-3
R2018	D-2
R2021	D-2
R2022	D-2
R2025	E-2
R2026	D-2
R2028	D-2
R2029	D-2
R2035	D-3
R2061	D-4
R2062	E-3
R2063	E-3
R2064	E-3
R2065	D-3
R2071	B-2
R2072	B-2
R2073	A-2
R2074	B-2
R2075	A-2
R2091	D-4
S2061	E-4
VDR201	E-1

MA-385 BOARD (SIDE B)

C2008	E-8
C2010	E-7
C2012	E-8
C2023	D-6
C2027	D-6
C2028	D-6
C2029	D-7
C2033	D-7
C2035	D-7
C2036	D-8
C2037	D-8
C2038	D-8
C2039	D-7
C2041	D-8
C2044	E-8
C2045	E-8
C2046	E-8
C2047	E-8
C2072	A-7
C2073	B-8
CN2001	D-7
CN2051	E-7
CN2071	B-8
D2002	D-8
D2091	D-6
FB2003	E-8
J2001	D-9
J2002	E-9
L2001	D-8
R2009	D-7
R2010	E-8
R2017	D-6
R2019	D-6
R2020	D-6
R2023	D-6
R2024	D-6
R2027	D-7
R2030	D-7
R2031	D-8
R2032	D-7
R2033	D-8
R2034	D-8
R2036	E-8
R2037	E-8
R2038	E-8
R2039	E-8
R2051	D-7
R2052	D-7

DD-137 BOARD (SIDE A)

C1639	A-1
C1648	A-2
C1651	A-3
C1652	A-5
C1653	A-4
C1654	A-4
C1656	B-4
C1657	B-5
C1658	A-5
C1659	B-4
C1660	B-4
C1661	B-5
C1662	A-5
C1663	B-4
C1664	B-5
C1665	B-4
C1666	B-3
C1667	B-3
C1669	B-3
C1672	B-4
C1673	B-5
CN1601	B-1
CN1602	B-1
CN1604	B-4
D1602	B-1
D1614	A-1
D1615	A-4
D1616	A-1
F1601	B-1
F1602	B-1
F1603	B-2
F1604	B-2
F1605	B-2
F1606	B-1
IC1602	B-4
L1601	A-2
L1602	A-2
L1603	B-2
L1604	A-2
L1605	B-2
L1606	A-3
L1607	A-5
L1608	A-4
L1609	A-4
L1610	B-4
L1611	A-4
L1612	B-4
L1613	B-5
L1614	B-5
L1615	B-5
L1616	B-5
L1619	A-4
L1624	B-3
LF1601	B-1
Q1615	A-1
Q1617	A-1
Q1624	A-2
Q1625	A-1
Q1626	A-1
Q1627	B-4
Q1628	B-4
Q1629	B-3
Q1632	B-3
Q1635	B-3
Q1637	B-3
Q1639	B-3
Q1641	B-3
Q1643	B-3
Q1646	B-4
Q1647	B-4
Q1648	B-3
Q1649	B-4
Q1650	B-3
Q1653	B-4
R1601	B-1
R1607	B-1
R1608	B-1
R1645	A-2
R1646	A-1
R1647	A-2
R1648	A-2
R1649	A-2
R1650	A-1
R1652	B-4
R1654	B-3
R1655	B-4
R1656	B-4
R1657	B-4
R1658	B-4
R1661	B-3
R1662	B-3
R1664	B-3
R1666	B-3
R1668	B-4
R1669	B-3
R1672	B-3
R1673	B-3
R1674	B-3
R1675	B-3
R1676	B-3
R1677	B-3
R1678	A-2
R1680	B-3
R1682	A-1
R1683	B-4
R1684	B-3
R1685	B-4
R1686	B-3
R1687	B-4
R1688	B-4
R1689	B-4
R1690	B-4
R1691	B-4
R1692	B-3
R1693	B-4
R1694	B-5
T1601	B-2
T1602	B-2

DD-137 BOARD (SIDE B)

C1601	B-10
C1602	B-7
C1603	B-7
C1604	B-6
C1605	B-7
C1606	B-9
C1607	B-6
C1608	B-9
C1609	B-6
C1610	B-9
C1611	B-7
C1612	B-6
C1613	B-9
C1614	B-9
C1615	B-8
C1616	A-9
C1617	B-6
C1618	B-6
C1619	B-8
C1620	B-6
C1621	B-7
C1622	B-8
C1623	B-8
C1624	B-8
C1625	B-6
C1626	B-8
C1627	B-7
C1628	B-7
C1629	A-7
C1630	A-7
C1631	A-7
C1632	B-7
C1633	B-9
C1634	A-9
C1635	B-9
C1636	B-9
C1637	A-8
C1638	B-9
C1640	A-9
C1641	B-9
C1642	B-8
C1643	B-9
C1644	B-8
C1645	B-9
C1646	B-8
C1647	B-9
C1649	B-9
C1650	B-8
C1655	B-8
C1668	B-8
C1670	B-7
C1671	B-8
C1674	B-7
CN1603	A-7
D1601	B-10
D1604	B-10
D1606	B-9
D1607	B-8
D1608	B-8
D1609	B-8
D1610	B-9
D1611	B-8
D1612	B-8
D1613	B-9
IC1601	B-7
L1617	B-8
L1618	B-8
Q1601	B-10
Q1602	B-10
Q1603	B-10
Q1604	A-10
Q1605	B-9
Q1606	B-8
Q1607	B-8
Q1608	B-8
Q1609	B-9
Q1610	A-9
Q1611	A-9
Q1612	A-9
Q1613	B-9
Q1614	A-8
Q1616	A-10
Q1618	B-9
Q1619	A-9
Q1620	A-9
Q1621	A-8
Q1622	B-9
Q1623	B-8
Q1633	B-8
Q1634	B-8
Q1636	B-8
R1602	B-10
R1603	B-10
R1604	B-10
R1605	B-10
R1606	A-10
R1609	B-7
R1610	B-7
R1611	B-7
R1612	B-6
R1613	B-8
R1614	B-7
R1615	B-6
R1616	B-6
R1617	B-8
R1618	B-6
R1619	B-8
R1620	B-6
R1621	B-6
R1622	B-6
R1623	B-6
R1624	B-6
R1625	B-7
R1626	B-6
R1627	B-6
R1628	B-6
R1629	B-6
R1630	B-6
R1631	B-6
R1632	A-6
R1633	B-6
R1635	B-6
R1636	B-6
R1637	A-7
R1638	B-7
R1639	B-7
R1640	A-7
R1641	B-8
R1642	B-8
R1643	B-7
R1644	A-7
R1651	B-8
R1663	B-8
R1665	B-8
R1667	B-8
R1670	B-8
R1671	B-8
R1679	B-8
R1681	B-8
R1695	B-7
R1696	B-7
R1697	B-7
R1698	B-7
R1699	B-7
R1700	B-7
R1701	B-7
R1702	B-7

SECTION 5
ADJUSTMENTS

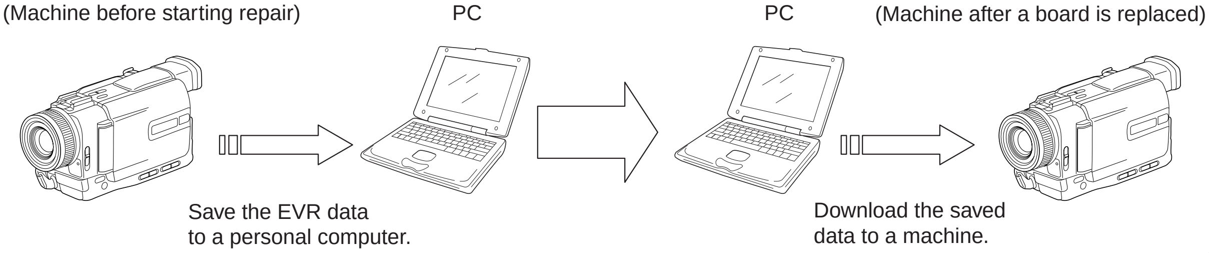
1. Before starting adjustment

EVR Data Re-writing Procedure When Replacing Board

The data that is stored in the repair board, is not necessarily correct.
Perform either procedure 1 or procedure 2 or procedure 3 when replacing board.

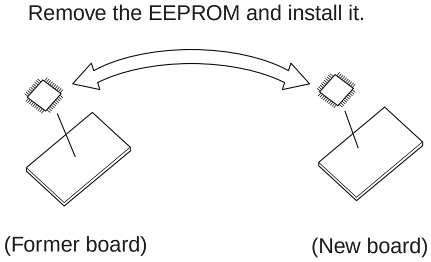
Procedure 1

Save the EVR data of the machine in which a board is going to be replaced. Download the saved data after a board is replaced.


(Machine before starting repair)
PC
PC
(Machine after a board is replaced)
Save the EVR data
to a personal computer.
Download the saved
data to a machine.

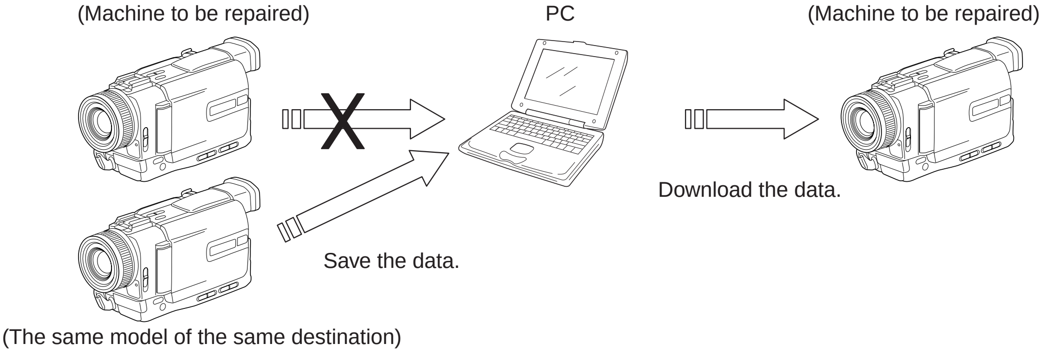
Procedure 2

Remove the EEPROM from the board of the machine that is going to be repaired. Install the removed EEPROM to the replaced board.


Remove the EEPROM and install it.
(Former board)
(New board)

Procedure 3

When the data cannot be saved due to defective EEPROM, or when the EEPROM cannot be removed or installed, save the data from the same model of the same destination, and download it.


(Machine to be repaired)
PC
(Machine to be repaired)
Download the data.
Save the data.
(The same model of the same destination)

After the EVR data is saved and downloaded, check the respective items of the EVR data.
(Refer to page 5-3 for the items to be checked.)

1-1. Adjusting items when replacing main parts and boards.

• Adjusting items when replacing main parts (DCR-TRV6/TRV6E/TRV11/TRV11E)

When replacing main parts, adjust the items indicated by ● in the following table.

Note1: When replacing the drum assy., reset the data of page: 2, address: A2 to A4 to “00”. (Refer to “Record of Use check” of “5-4. SERVICE MODE”)

Adjustment Section	Adjustment	Replaced parts																											
		Block replacement										Parts replacement																	
		Lens device	Mechanism deck	Color EVF block LCD902 (LCD panel)	LCD block LCD901 (LCD panel)	LCD block ND901 (Fluorescent tube)	LCD block Inverter unit	Control switch block (FK-30150)	Mechanism deck M901 (Drum assy) Note1	Mechanism deck M902 (Capstan motor)	Mechanism deck LS chassis D3 assy	JK-188 board SE3051/3052 (PITCH/YAW sensor)	PD-123 board IC2104 (RGB driver (LCD)) *1	PD-123 board IC2105 (Timing generator (LCD)) *1	PD-124 board IC3101 (RGB driver (LCD)) *2	PD-124 board IC3102 (Timing generator (LCD)) *2	LB-64 board ND2201 (Fruorescent tube (EVF))	VC-241 board IC1802 (RGB driver (EVF))	VC-241 board IC1803 (Timing generator (EVF))	FP-219 flexible IC101 (CCD imager)	VC-241 board IC702, X701 (Timing generator)	VC-241 board IC701 (CDS, AGC, A/D conv.)	VC-241 board IC204 (Lens predriver)	VC-241 board IC751 (Camera process, EVR)	VC-241 board IC1301 (LINE IN/OUT AMP)	VC-241 board IC301 (DV signal process)	VC-241 board IC101 (EQ, A/D conv., PLL)	VC-241 board IC102 (REC/PB AMP)	VC-241 board IC1901 (IR transmitter)
Initialization of B, C, D, E, F, 7, 8 page data	Initialization of C, D, 8 page data																												
	Initialization of B page data *1																												
	Initialization of E, F, 7 page data																												
Camera	36MHz origin oscillation adj.																				●			●					
	Zoom center adj.							●																					
	Hall adj.	●																						●					
	Flange back adj.	●																		●			●	●					
	Optical axis adj.	●																		●									
	Color reproduction adj.																			●		●							
	MAX GAIN adj.																			●		●							
	AWB & LV standard data input																			●		●							
	Auto white balance adj.																			●		●							
	Mechanical shutter adj.																												
	Angular velocity sensor sensitivity adj.											●																	
Color EVF	VCO adj.																		●										
	RGB AMP adj.																	●											
	Contrast adj.																	●								●			
	Backlight consumption current adj.																●												
	White balance adj.			●													●	●								●			
LCD	VCO adj.													●		●													
	RGB AMP adj. *1												●																
	Bright adj. *2														●														
	Black limit adj. *2														●														
	Contrast adj.												●		●											●			
	V-COM level adj. *1												●																
	Center level adj. *2														●														
	V-COM adj.				●								●		●														
	White balance adj.				●	●	●						●		●											●			
System control	Serial No. input																												
Servo, RF	CAP FG duty adj.		●							●																	●		
	Switching position adj.		●						●																				
	AGC center level adj.		●						●																		●	●	
	APC & AEQ adj.		●						●																		●	●	
	PLL f_0 & LPF f_0 adj.		●						●																		●	●	
Video	Chroma BPF f_0 adj.																								●				
	S VIDEO OUT Y level adj.																								●	●			
	S VIDEO OUT Cr, Cb level adj.																								●	●			
IR	IR video carrier frequency adj.																							●	●	●			●
	IR video deviation adj.																							●	●				●
	IR audio deviation adj.																							●					●
Mechanism	Tape path adj.		●						●	●	●																		

Table. 5-1-1(1).

• Adjusting items when replacing a board or EEPROM (DCR-TRV6/TRV6E/TRV11/TRV11E)

When replacing a board or EEPROM, adjust the items indicated by ● in the following table.

*1: DCR-TRV11/TRV11E model only
*2: DCR-TRV6/TRV6E model only

Adjustment Section	Adjustment	Board replacement							
		VC-241 board (COMPLETE)	JK-188 board (COMPLETE)	PD-123 board (COMPLETE) *1	PD-124 board (COMPLETE) *2	LB-64 board (COMPLETE)	VC-241 board IC801 (EEPROM)	VC-241 board IC502 (EEPROM)	VC-241 board IC1407 (Flash memory) *1
Initialization of B, C, D, E, F, 7, 8 page data	Initialization of C, D, 8 page data	●						●	
	Initialization of B page data *1	●							●
	Initialization of E, F, 7 page data	●					●		
Camera	36MHz origin oscillation adj.	●					●		
	Zoom center adj.	●					●		
	Hall adj.	●					●		
	Flange back adj.	●					●		
	Optical axis adj.	●					●		
	Color reproduction adj.	●					●		
	MAX GAIN adj.	●					●		
	AWB & LV standard data input	●					●		
	Auto white balance adj.	●					●		
	Mechanical shutter adj.	●					●		
	Angular velocity sensor sensitivity adj.	●	●				●		
Color EVF	VCO adj.	●						●	
	RGB AMP adj.	●						●	
	Contrast adj.	●						●	
	Backlight consumption current adj.	●				●		●	
	White balance adj.	●				●		●	
LCD	VCO adj.	●		●	●			●	
	RGB AMP adj. *1	●		●				●	
	Bright adj. *2	●			●			●	
	Black limit adj. *2	●			●			●	
	Contrast adj.	●		●	●			●	
	V-COM level adj. *1	●		●				●	
	Center level adj. *2	●			●			●	
	V-COM adj.	●		●	●			●	
	White balance adj.	●		●	●			●	
System control	Serial No. input	●						●	
Servo, RF	CAP FG duty adj.	●						●	
	Switching position adj.	●						●	
	AGC center level adj.	●						●	
	APC & AEQ adj.	●						●	
	PLL f_0 & LPF f_0 adj.	●						●	
Video	Chroma BPF f_0 adj.	●						●	
	S VIDEO OUT Y level adj.	●						●	
	S VIDEO OUT Cr, Cb level adj.	●						●	
IR	IR video carrier frequency adj.	●					●		
	IR video deviation adj.	●					●		
	IR audio deviation adj.	●					●		
Mechanism	Tape path adj.								

Table. 5-1-1(2).

• Adjusting items when replacing main parts (DCR-TRV20/TRV20E)

When replacing main parts, adjust the items indicated by ● in the following table.

Note1: When replacing the drum assy., reset the data of page: 2, address: A2 to A4 to "00". (Refer to "Record of Use check" of "5-4. SERVICE MODE")

Adjustment Section	Adjustment	Replaced parts																												
		Block replacement										Parts replacement																		
		Lens device	Mechanism deck	Color EVF block LCD902 (LCD panel)	LCD block LCD901 (LCD panel)	LCD block ND901 (Fluorescent tube)	LCD block Inverter unit	Control switch block (FK-30150)	Mechanism deck M901 (Drum assy) Note1	Mechanism deck M902 (Capstan motor)	Mechanism deck LS chassis D3 assy	JK-188 board SE3051/3052 (PITCH/YAW sensor)	PD-123 board IC2104 (RGB driver (LCD)) *1	PD-123 board IC2105 (Timing generator (LCD)) *1	PD-124 board IC3101 (RGB driver (LCD)) *2	PD-124 board IC3102 (Timing generator (LCD)) *2	LB-64 board ND2201 (Fruorescent tube (EVF))	VC-240 board IC1802 (RGB driver (EVF))	VC-240 board IC1803 (Timing generator (EVF))	CD-252 board IC101 (CCD imager)	CD-252 board IC102, X101 (Timing generator)	CD-252 board IC104 (CDS, AGC,)	VC-240 board IC204 (Lens predriver)	VC-240 board IC701 (A/D converter)	VC-240 board IC1301 (LINE IN/OUT AMP)	VC-240 board IC301 (DV signal process)	VC-240 board IC101 (EQ, A/D conv., PLL)	VC-240 board IC102 (REC/PB AMP)	VC-240 board IC1901 (IR transmitter)	VC-240 board IC803 (EVR)
Initialization of B, C, D, E, F, 7, 8 page data	Initialization of C, D, 8 page data																													
	Initialization of B page data																													
	Initialization of E, F, 7 page data																													
Camera	54MHz/66MHz origin oscillation adj.																				●									●
	Zoom center adj.							●																						
	Hall adj.	●																												●
	MR adj.	●																					●							●
	Flange back adj.	●																		●			●							
	Color reproduction adj.																			●		●		●						
	MAX GAIN adj.																													
	AWB & LV standard data input																			●		●		●						
	Auto white balance adj.																			●		●		●						
	Mechanical shutter adj.																													
	Angular velocity sensor sensitivity adj.											●																		
Color EVF	VCO adj.																		●											
	RGB AMP adj.																	●												
	Contrast adj.																	●								●				
	Backlight consumption current adj.																●													
	White balance adj.			●													●	●								●				
LCD	VCO adj.													●		●														
	RGB AMP adj. *1												●																	
	Bright adj. *2														●															
	Black limit adj. *2														●															
	Contrast adj.												●		●											●				
	V-COM level adj. *1												●																	
	Center level adj. *2														●															
	V-COM adj.				●								●		●															
	White balance adj.				●	●	●						●		●											●				
System control	Serial No. input																													
Servo, RF	CAP FG duty adj.		●							●																	●			
	Switching position adj.		●						●																					
	AGC center level adj.		●						●																		●	●		
	APC & AEQ adj.		●						●																		●	●		
	PLL f0 & LPF f0 adj.		●						●																		●	●		
Video	Chroma BPF f0 adj.																								●					
	S VIDEO OUT Y level adj.																								●	●				
	S VIDEO OUT Cr, Cb level adj.																								●	●				
IR	IR video carrier frequency adj.																								●	●			●	●
	IR video deviation adj.																								●				●	●
	IR audio deviation adj.																												●	●
Mechanism	Tape path adj.		●						●	●	●																			

Table. 5-1-2(1).

• Adjusting items when replacing a board or EEPROM (DCR-TRV20/TRV20E)

When replacing a board or EEPROM, adjust the items indicated by ● in the following table.

*1: DCR-TRV20 model only
*2: DCR-TRV20E model only
*3: Perform this adjustment when replace the CCD imager (IC101) and this board at the same time.

Adjustment Section	Adjustment	Board replacement								
		CD-252 board (COMPLETE)	VC-240 board (COMPLETE)	JK-188 board (COMPLETE)	PD-123 board (COMPLETE) *1	PD-124 board (COMPLETE) *2	LB-64 board (COMPLETE)	VC-240 board IC801 (EEPROM)	VC-240 board IC502 (EEPROM)	VC-240 board IC1406 (EEPROM)
Initialization of B, C, D, E, F, 7, 8 page data	Initialization of C, D, 8 page data		●						●	
	Initialization of B page data		●							●
	Initialization of E, F, 7 page data		●					●		
Camera	54MHz/66MHz origin oscillation adj.	●	●					●		
	Zoom center adj.		●					●		
	Hall adj.		●					●		
	MR adj.		●					●		
	Flange back adj.	●	●					●		
	Color reproduction adj.	*3	●					●		
	MAX GAIN adj.		●					●		
	AWB & LV standard data input	*3	●					●		
	Auto white balance adj.	*3	●					●		
	Mechanical shutter adj.		●					●		
	Angular velocity sensor sensitivity adj.		●	●				●		
Color EVF	VCO adj.		●						●	
	RGB AMP adj.		●						●	
	Contrast adj.		●						●	
	Backlight consumption current adj.		●				●		●	
	White balance adj.		●				●		●	
LCD	VCO adj.		●		●	●			●	
	RGB AMP adj. *1		●		●				●	
	Bright adj. *2		●			●				
	Black limit adj. *2		●			●				
	Contrast adj.		●		●	●				
	V-COM level adj. *1		●		●				●	
	Center level adj. *2		●			●			●	
	V-COM adj.		●		●	●			●	
	White balance adj.		●		●	●			●	
System control	Serial No. input		●						●	
Servo, RF	CAP FG duty adj.		●						●	
	Switching position adj.		●						●	
	AGC center level adj.		●						●	
	APC & AEQ adj.		●						●	
	PLL f_0 & LPF f_0 adj.		●						●	
Video	Chroma BPF f_0 adj.		●						●	
	S VIDEO OUT Y level adj.		●						●	
	S VIDEO OUT Cr, Cb level adj.		●						●	
IR	IR video carrier frequency adj.		●					●		
	IR video deviation adj.		●					●		
	IR audio deviation adj.		●					●		
Mechanism	Tape path adj.									

Table. 5-1-2(2).

5-1. CAMERA SECTION ADJUSTMENT

1-1. PREPARATIONS BEFORE ADJUSTMENT (CAMERA SECTION)

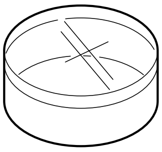
1-1-1. List of Service Tools

- Oscilloscope
- Regulated power supply
- Color monitor
- Digital voltmeter
- Vectorscope

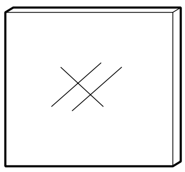
Ref. No.	Name	Parts Code	Usage
J-1	Filter for color temperature correction (C14)	J-6080-058-A	Auto white balance adjustment/check White balance adjustment/check
J-2	ND filter 1.0	J-6080-808-A	White balance check
	ND filter 0.4	J-6080-806-A	White balance check
	ND filter 0.1	J-6080-807-A	White balance check
J-3	Pattern box PTB-450	J-6082-200-A	
J-4	Color chart for pattern box	J-6020-250-A	
J-5	Adjustment remote commander (RM-95 upgraded). (Note 1)	J-6082-053-B	
J-6	Siemens star chart	J-6080-875-A	For checking the flange back
J-7	Clear chart for pattern box	J-6080-621-A	
J-8	CPC-8 jig	J-6082-388-A	For adjusting the video section For adjusting the color viewfinder For adjusting the LCD block
J-9	Extension cable (80P, 0.4mm)	J-6082-395-A	For extension between the DD-137 board (CN1603) and the VC-240/241 board (CN002)
J-10	IR receiver jig	J-6082-383-A	For adjusting the IR transmitter
J-11	Mini pattern box	J-6082-353-B	For adjusting the flange back
J-12	Camera table	J-6082-384-A	For adjusting the flange back

Note 1: If the micro processor IC in the adjustment remote commander is not the new micro processor (UPD7503G-C56-12), the pages cannot be switched. In this case, replace with the new micro processor (8-759-148-35).

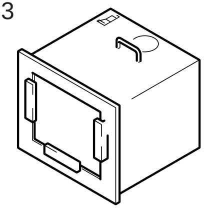
J-1



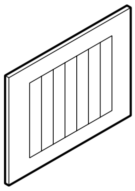
J-2



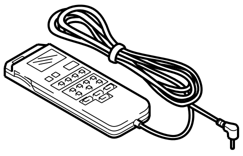
J-3



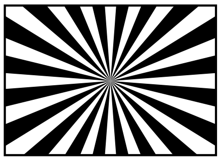
J-4



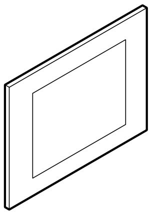
J-5



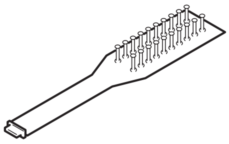
J-6



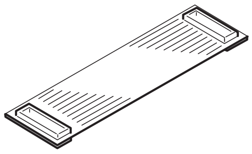
J-7



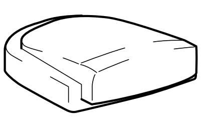
J-8



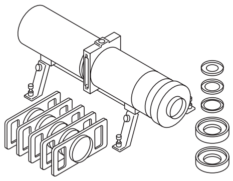
J-9



J-10



J-11



J-12

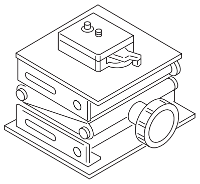


Fig. 5-1-1.

1-1-2. Preparations

Note 1: For details of how remove the cabinet and boards, refer to "2. DISASSEMBLY".

Note 2: When performing only the adjustments, the lens block and boards need not be disassembled.

1) Connect the equipment for adjustments according to Fig. 5-1-2.

Note 3: As removing the cabinet (R) (removing the VC-240/241 board CN003) means removing the lithium 3V power supply (BT3201), data such as date, time, user-set menus will be lost. After completing adjustments, reset these data. If the cabinet (R) has been removed, the self-diagnosis data, data on history of use (total drum rotation time etc.) will be lost. Before removing, note down the self-diagnosis data and the data on history use (data of page: 2, address: A2 to AA). (Refer to "SELF-DIAGNOSIS FUNCTION" for the self-diagnosis data, and to "5-4.Service Mode" for the data on the history use.)

Note 4: Setting the "Forced Camera Power ON" Mode
1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 10, set data: 01, and press the PAUSE button of the adjustment remote commander.
The above procedure will enable the camera power to be turned on with the control switch block (FK-30150) removed. After completing adjustments, be sure to exit the "Forced Camera Power ON Mode".

Note 5: Exiting the "Forced Camera Power ON" Mode
1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 10, set data: 00, and press the PAUSE button of the adjustment remote commander.
3) Select page: 0, address: 01, and set data: 00.

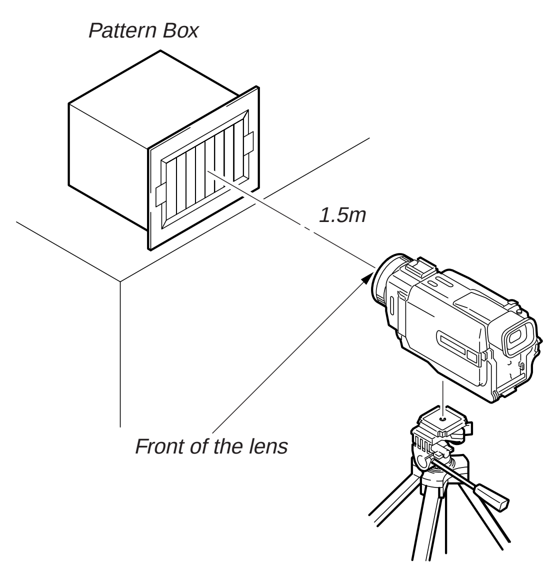
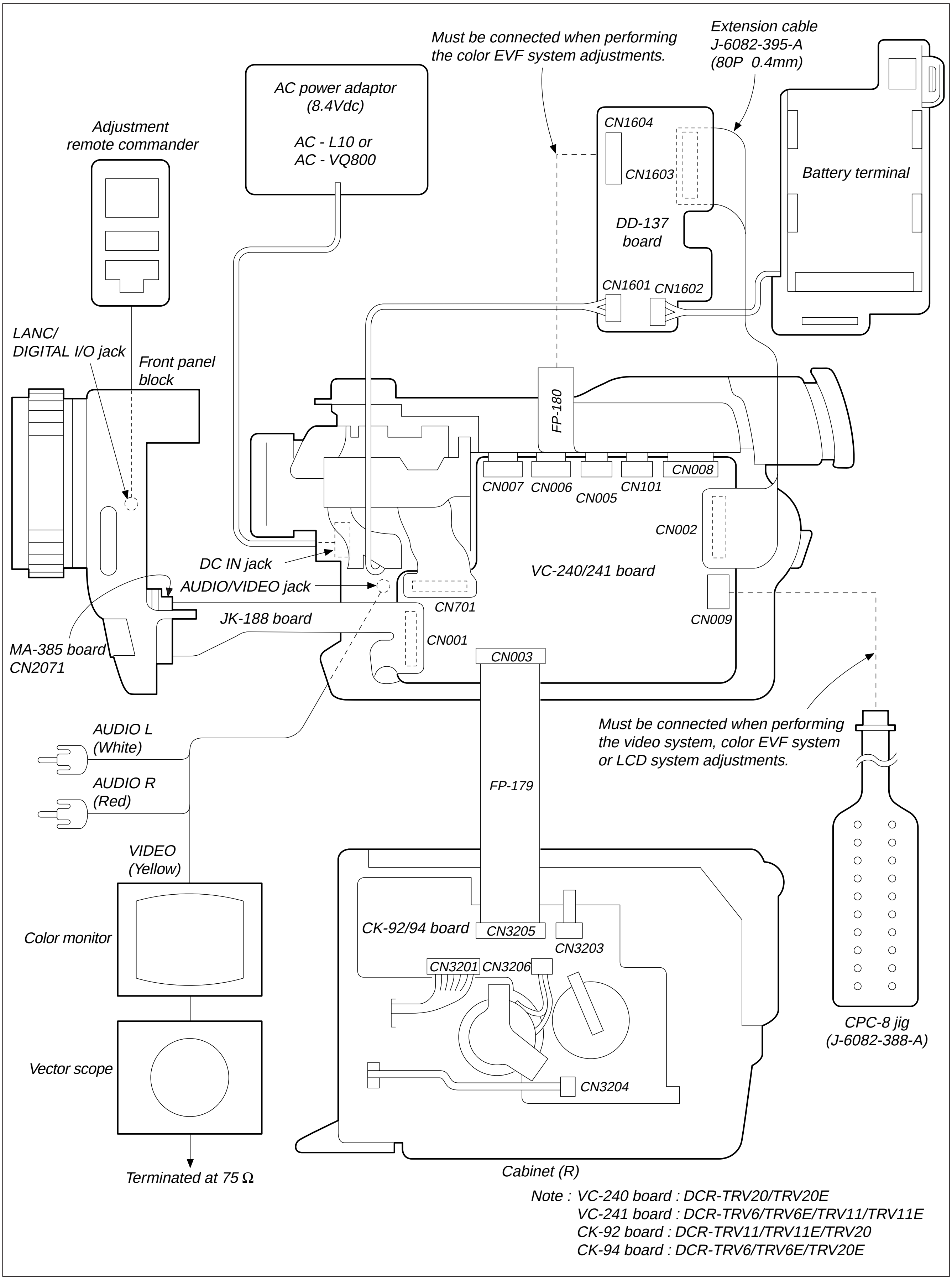


Fig. 5-1-2.


Must be connected when performing
the color EVF system adjustments.
Extension cable
J-6082-395-A
(80P 0.4mm)
AC power adaptor
(8.4Vdc)
AC - L10 or
AC - VQ800
Adjustment
remote commander
CN1604
CN1603
Battery terminal
DD-137
board
CN1601
CN1602
LANC/
DIGITAL I/O jack
Front panel
block
FP-180
CN008
CN007
CN006
CN005
CN101
CN002
VC-240/241 board
DC IN jack
AUDIO/VIDEO jack
CN701
JK-188 board
CN009
MA-385 board
CN2071
CN001
CN003
AUDIO L
(White)
AUDIO R
(Red)
Must be connected when performing
the video system, color EVF system
or LCD system adjustments.
FP-179
VIDEO
(Yellow)
Color monitor
CK-92/94 board
CN3205
CN3203
CN3201
CN3206
CPC-8 jig
(J-6082-388-A)
Vector scope
CN3204
Cabinet (R)
Terminated at 75 Ω

Note : VC-240 board : DCR-TRV20/TRV20E
VC-241 board : DCR-TRV6/TRV6E/TRV11/TRV11E
CK-92 board : DCR-TRV11/TRV11E/TRV20
CK-94 board : DCR-TRV6/TRV6E/TRV20E

Fig. 5-1-3.

1-1-3. Precaution

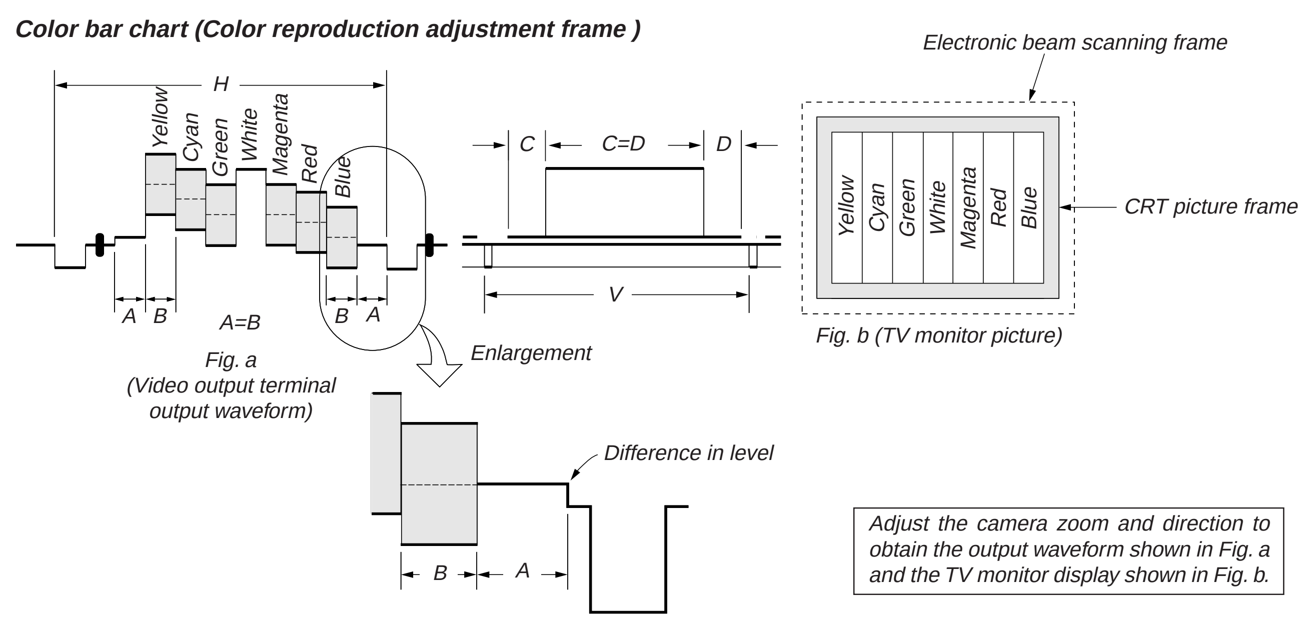
1. Setting the Switch

Unless otherwise specified, set the switches as follows and perform adjustments without loading cassette.

1.	POWER switch (PS-30150 block)	CAMERA
2.	NIGHT SHOT switch (Lens block)	OFF
3.	DEMO MODE (Menu setting)	OFF
4.	DIGITAL ZOOM (Menu setting)	OFF
5.	STEADY SHOT (Menu setting)	OFF
6.	PROGRAM AE (CF-30150)	AUTO
7.	WHITE BALANCE (Menu setting)	AUTO
8.	16 : 9 WIDE (Menu setting)	OFF
9.	PICTURE EFFECT (Menu setting)	OFF
10.	DISPLAY (Menu setting)	V-OUT/LCD
11.	DISPLAY (CK-92/94 board)	ON
12.	FOCUS switch (MA-385 board)	MANUAL
13.	DIGITAL EFFECT (CK-92/94 board)	OFF

2. Order of Adjustments

Basically carry out adjustments in the order given.


Color bar chart (Color reproduction adjustment frame)
H
Yellow
Cyan
Green
White
Magenta
Red
Blue
A
B
A=B
B
A
Fig. a
(Video output terminal output waveform)
Enlargement
C
C=D
D
V
Electronic beam scanning frame
Yellow
Cyan
Green
White
Magenta
Red
Blue
CRT picture frame
Fig. b (TV monitor picture)
Difference in level
B
A

Adjust the camera zoom and direction to obtain the output waveform shown in Fig. a and the TV monitor display shown in Fig. b.

Fig.5-1-4.

3. Subjects

1) Color bar chart (Color reproduction adjustment frame)
   When performing adjustments using the color bar chart, adjust the picture frame as shown in Fig. 5-1-4. (Color reproduction adjustment frame)
2) Clear chart (Color reproduction adjustment frame)
   Remove the color bar chart from the pattern box and insert a clear chart in its place. (Do not perform zoom operations during this time.)
3) Flange back adjustment chart
   Make the chart shown in Fig. 5-1-5 using A0 size (1189mm × 841mm) black and white vellum paper.

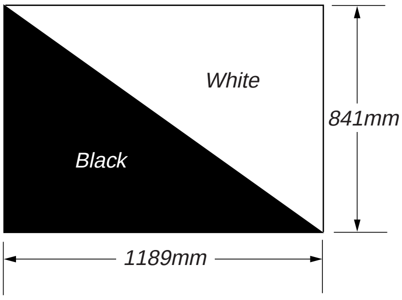

White
Black
841mm
1189mm

Fig. 5-1-5.

Note: Use matte vellum paper bigger than A0, and make sure the edges of the black and white paper joined together are not rough.

1-2. INITIALIZATION OF B, C, D, E, F, 7, 8 PAGE DATA

1-2-1. INITIALIZATION OF C, D, 8 PAGE DATA

1. Initializing the C, D, 8 Page Data

Note1: If "Initializing the C, D, 8 Page Data" is performed, all data of the C page, D page and 8 page will be initialized. (It is impossible to initialize a single page.)

Note2: If the C, D, 8 page data has been initialized, the following adjustments need to be performed again.
1) Modification of C, D, 8 page data
2) Serial No. input
3) Servo and RF system adjustments
4) Video system adjustments
5) Color viewfinder system adjustments
6) LCD system Adjustments

Adjusting page	C
Adjusting Address	10 to FF
Adjusting page	D
Adjusting Address	10 to FF
Adjusting page	8
Adjusting Address	00 to FF

Initializing Method:
1) Select page: 0, address: 01, and set data: 01.
2) Select page: 3, address: 81, and check that the data is "00".
3) Select page: 3, address: 80, set data: 0A, and press the PAUSE button of the adjustment remote commander.
4) Select page: 3, address: 80, and check that the data changes to "1A".
5) Perform "Modification of C, D, 8 Page Data".

2. Modification of C, D, 8 Page Data

If the C, D, 8 page data has been initialized, change the data of the "Fixed data-2" address shown in the following tables by manual input.

Modifying Method:
1) Before changing the data, select page: 0, address: 01, and set data: 01.
2) New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.
   Note: If copy the data built in the different model, the camcorder may not operate.
3) When changing the data, press the PAUSE button of the adjustment remote commander each time when setting new data to write the data in the non-volatile memory.
4) Check that the data of adjustment addresses is the initial value. If not, change the data to the initial value.

Processing after Completing Modification of C, D, 8 Page data
1) Select page: 2, address: 00, and set data: 29.
2) Select page: 2, address: 01, and set data: 29, and press the PAUSE button of the adjustment remote commander.
   Note: If the following symptoms occur after completing of the "Modification of C, D, 8 page data", check that the data of the "Fixed data-2" addresses of D page are same as those of the same model of the same destination.
   1) The battery end mark on the LCD or viewfinder screen is flashing.
   2) The power is shut off so that unit cannot operate.

3. C Page Table

Note: Fixed data-1: Initialized data. (Refer to "1. Initializing the C, D, 8 Page Data".)
Fixed data-2: Modified data. (Refer to "2. Modification of C, D, 8 Page Data".)

Address	Initial value	Remark
00 to 0F		
10	EE	Switching position adj.
11	00	
12	00	
13	00	
14		Fixed data-1
15		(Initialized data)
16	E0	Cap FG duty adj.
17		Fixed data-2
18	2A	AEQ adj.
19	2A	
1A		Fixed data-1
1B	32	AEQ adj.
1C	32	
1D		Fixed data-1
1E	25	AGC center level adj.
1F	3E	PLL f_0 adj.
20	3E	
21	DC	APC adj.
22	99	LPF f_0 adj.
23		Fixed data-1
24		(Initialized data)
25	88	S VIDEO out Y level adj.
26	E3	S VIDEO out Cr level adj.
27	A1	S VIDEO out Cb level adj.
28	04	Chroma BPF f_0 adj.
29	20	PLL f_0 fine adj.
2A		Fixed data-1
2B		(Initialized data)
2C	03	APC adj.
2D to 3F		Fixed data-1 (Initialized data)
40		Fixed data-2
41		Fixed data-1
42		Fixed data-2
43 to 4B		Fixed data-1 (Initialized data)
4C		Fixed data-2
4D		(Modified data. Copy the data built in the same model.)
4E		Fixed data-1
4F		(Initialized data)
50		Fixed data-2
51		(Modified data. Copy the data built in the same model.)
52 to 63		Fixed data-1 (Initialized data)
64		Fixed data-2
65 to 83		Fixed data-1
84		Fixed data-2
85		Fixed data-1

Address	Initial value	Remark
86		Fixed data-2 (Modified data. Copy the data built in the same model.)
87		
88		
89		
8A to 9A		Fixed data-1 (Initialized data)
9B		Fixed data-2 (Modified data. Copy the data built in the same model.)
9C		
9D		
9E		
9F		
A0		
A1		Fixed data-1 (Initialized data)
A2		
A3		Fixed data-2 (Modified data. Copy the data built in the same model.)
A4		
A5		
A6		
A7		
A8		
A9		Fixed data-1 (Initialized data)
AA		
AB		Fixed data-2 (Modified data. Copy the data built in the same model.)
AC		
AD		
AE		Fixed data-1
AF		Fixed data-2 (Modified data. Copy the data built in the same model.)
B0		
B1		Fixed data-1
B2		Fixed data-2 (Modified data. Copy the data built in the same model.)
B3		
B4		
B5		
B6		
B7		
B8		
B9 to BF		Fixed data-1 (Initialized data)
C0		Fixed data-2
C1 to D5		Fixed data-1 (Initialized data)
D6		Fixed data-2 (Modified data. Copy the data built in the same model.)
D7		
D8		
D9		
DA		
DB		
DC		
DD		
DE		
DF		
E0 to E3		Fixed data-1 (Initialized data)
E4		Fixed data-2 (Modified data. Copy the data built in the same model.)
E5		

Address	Initial value	Remark
E6		Fixed data-2 (Modified data. Copy the data built in the same model.)
E7		Fixed data-1
E8	08	Serial No. input
E9	00	
EA	46	
EB	01	
EC	02	
ED	00	
EE	00	
EF	00	
F0		Fixed data-1 (Initialized data)
F1		
F2		
F3		
F4	00	Emergency memory address
F5	00	
F6	00	
F7	00	
F8	00	
F9	00	
FA	00	
FB	00	
FC	00	
FD	00	
FE	00	
FF	00	

Table. 5-1-3.

4. D Page Table

Note: Fixed data-1: Initialized data. (Refer to “1. Initializing the C, D, 8 Page Data”.)
Fixed data-2: Modified data. (Refer to “2. Modification of C, D, 8 Page Data”.)

*1: TRV11/TRV11E/TRV20 model only
*2: TRV6/TRV6E/TRV20E model only
*3: TRV6/TRV6E/TRV11/TRV11E/TRV20/TRV20E

Address	Initial value	Remark
00 to 0F		
10	00	Test mode
11		Fixed data-1 (Initialized data)
12		
13		Fixed data-2 (Modified data. Copy the data built in the same model.)
14		
15 to 1C		Fixed data-1 (Initialized data)
1D		Fixed data-2
1E to 25		Fixed data-1 (Initialized data)
26		Fixed data-2 (Modified data. Copy the data built in the same model.)
27		
28		
29		
2A		
2B		Fixed data-1
2C		Fixed data-2
2D		Fixed data-1
2E		Fixed data-2 (Modified data. Copy the data built in the same model.)
2F		
30		
31		Fixed data-1 (Initialized data)
32		
33		Fixed data-2
34 to 41		Fixed data-1 (Initialized data)
42		Fixed data-2 (Modified data. Copy the data built in the same model.)
43		
44		
45		
46 to 4F		Fixed data-1 (Initialized data)
50		Fixed data-2 (Modified data. Copy the data built in the same model.)
51		
52		
53		
54		
55		Fixed data-1 (Initialized data)
56		
57		
58		Fixed data-2 (Modified data. Copy the data built in the same model.)
59		
5A		
5B		Fixed data-1
5C		Fixed data-2
5D to 63		Fixed data-1 (Initialized data)

Address	Initial value	Remark
64		Fixed data-2 (Modified data. Copy the data built in the same model.)
65		
66		Fixed data-1
67		Fixed data-2 (Modified data. Copy the data built in the same model.)
68		
69 to 8D		Fixed data-1
8E		Fixed data-2
8F		
90 to 91		Fixed data-1
92	5D/7D *4	VCO adj. (EVF) *4: NTSC/PAL
93	5D/7D *4	
94		Fixed data-2
95	AC	RGB AMP adj.(EVF)
96		Fixed data-1
97	80	White balance adj. (EVF)
98	80	
99	1D	Contrast adj. (EVF)
9A		Fixed data-1
9B		Fixed data-2
9C	E0	Backlight consumption current adj. (EVF)
9D	E0	
9E	11	
9F		Fixed data-1 (Initialized data)
A0		
A1		
A2	45/6F/A5/A5/98/6C *3	VCO adj. (LCD)
A3	6B/4A/A5/A5/98/61 *3	
A4	27/27/88/88/91/27 *3	V-COM adj. (LCD)
A5	B5/B5/2B/2B/2C/B5 *3	RGB AMP adj. (LCD) *1 Bright adj.(LCD) *2
A6	05/05/00/00/00/05 *3	Black limit adj.(LCD) *2 Fixed data *1
A7	B9/B9/CE/CE/A1/B9 *3	V-COM level adj. (LCD) *1 Fixed data *2
A8	8A/8A/7F/7F/7F/8A *3	White balance adj. (LCD)
A9	72/72/87/87/87/72 *3	
AA	25/25/37/37/3F/25 *3	Contrast adj. (LCD)
AB	27/27/80/80/80/64 *3	Center level adj.(LCD) *2 Fixed data *1
AC		Fixed data-2 (Modified data. Copy the data built in the same model.)
AD		
AE		
AF		
B0		
B1		Fixed data-1 (Initialized data)
B2		
B3		
B4		Fixed data-2

Address	Initial value	Remark
B5		Fixed data-2 (Modified data. Copy the data built in the same model.)
B6		Fixed data-1 (Initialized data)
B7		
B8		
B9		Fixed data-2 (Modified data. Copy the data built in the same model.)
BA		
BB to C3		Fixed data-1 (Initialized data)
C4		Fixed data-2
C5		Fixed data-1
C6		Fixed data-2
C7 to D0		Fixed data-1 (Initialized data)
D1		Fixed data-2
D2		Fixed data-1 (Initialized data)
D3		
D4		
D5		
D6		Fixed data-2 (Modified data. Copy the data built in the same model.)
D7		
D8		Fixed data-1 (Initialized data)
D9		
DA		Fixed data-2 (Modified data. Copy the data built in the same model.)
DB		
DC to FF		Fixed data-1 (Initialized data)

Table. 5-1-4.

5. 8 Page Table

Note: Fixed data-1: Initialized data. (Refer to “1. Initializing the C, D, 8 Page Data”.)
Fixed data-2: Modified data. (Refer to “2. Modification of C, D, 8 Page Data”.)

Address	Remark
00 to 52	Fixed data-1 (Initialized data)
53	Fixed data-2 (Modified data. Copy the data built in the same model.)
54 to 98	Fixed data-1 (Initialized data)
99	Fixed data-2 (Modified data. Copy the data built in the same model.)
9A to A4	Fixed data-1 (Initialized data)
A5	Fixed data-2
A6	Fixed data-1
A7	Fixed data-2 (Modified data. Copy the data built in the same model.)
A8	
A9 to FF	Fixed data-1 (Initialized data)

Table. 5-1-5.

1-2-2. INITIALIZATION OF B PAGE DATA (DCR-TRV11/TRV11E/TRV20/TRV20E)

Note: When reading the B page data, insert a "Memory Stick" into the "Memory Stick" slot.

Switch setting:

POWER .... MEMORY

1. Initializing the B Page Data (DCR-TRV20/TRV20E)

Note: If the B page data has been initialized, the following adjustments need to be performed again.
1) Modification of B page data

Adjusting page	B
Adjusting Address	00 to FF

Initializing Method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 2, address: 8F, set data: 02, and press the PAUSE button.
3) Select page: 2, address: 8F, set data: 03, and press the PAUSE button.
4) Select page: 2, address: 8F, set data: 02, and press the PAUSE button.
5) Select page: 2, address: 8F, set data: 00, and press the PAUSE button.
6) Select page: 5, address: 01, set data: F3, and press the PAUSE button.
7) Select page: 5, address: 00, set data: 01, and press the PAUSE button.
8) Select page: 5, address: 01, and wait for three seconds.
9) Select page: 5, address: 00, and check that the data is "00".
10) Select page: 5, address: 02, and check that the data is "00".
11) Perform "Modification of B Page Data".

2. Modification of B Page Data (DCR-TRV20/TRV20E)

If the B page data has been initialized, change the data of the "Fixed data-2" address shown in the following tables by manual input.

Preparations:

1) Select page: 2, address: 8F, set data: 02, and press the PAUSE button.
2) Select page: 2, address: 8F, set data: 03, and press the PAUSE button.
3) Select page: 2, address: 8F, set data: 02, and press the PAUSE button.
4) Select page: 2, address: 8F, set data: 00, and press the PAUSE button.

Modifying Method:

1) Before changing the data, select page: 0, address: 01, and set data: 01.
2) New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.
   Note: If copy the data built in the different model, the camcorder may not operate.
3) When changing the data, press the PAUSE button of the adjustment remote commander each time when setting new data to write the data in the non-volatile memory.

Processing after Completing Modification of B Page data:

1) Select page: 2, address: 00, and set data: 29.
2) Select page: 2, address: 01, set data: 29, and press the PAUSE button.

3. Initializing the B Page Data (DCR-TRV11/TRV11E)

Note: If the B page data has been initialized, the following adjustments need to be performed again.
1) Modification of B page data

Adjusting page	B
Adjusting Address	00 to FF

Initializing Method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 2, address: 8F, set data: 02, and press the PAUSE button.
3) Select page: 2, address: 8F, set data: 03, and press the PAUSE button.
4) Select page: 2, address: 8F, set data: 02, and press the PAUSE button.
5) Select page: 2, address: 8F, set data: 00, and press the PAUSE button.
6) Select page: 5, address: 0E, set data: 00, and press the PAUSE button.
7) Select page: 5, address: 01, set data: F3, and press the PAUSE button.
8) Select page: 5, address: 00, set data: 01, and press the PAUSE button.
9) Select page: 5, address: 0E, and check that the data is "01".
10) Perform "Modification of B Page Data".

4. Modification of B Page Data (DCR-TRV11/TRV11E)

If the B page data has been initialized, change the data of the "Fixed data-2" address shown in the following tables by manual input.

Preparations:

1) Select page: 2, address: 8F, set data: 02, and press the PAUSE button.
2) Select page: 2, address: 8F, set data: 03, and press the PAUSE button.
3) Select page: 2, address: 8F, set data: 02, and press the PAUSE button.
4) Select page: 2, address: 8F, set data: 00, and press the PAUSE button.

Modifying Method:

1) Before changing the data, select page: 0, address: 01, and set data: 01.
2) New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.
   Note: If copy the data built in the different model, the camcorder may not operate.
3) **When changing the data, don't press the PAUSE button.**

Processing after Completing Modification of B Page data:

1) Select page: 5, address: 0E, set data: 00, and press the PAUSE button.
2) Select page: 5, address: 01, set data: FB, and press the PAUSE button.
3) Select page: 5, address: 00, set data: 01, and press the PAUSE button. (The changed data are written in the flash memory.)
4) Select page: 5, address: 0E, and check that the data is "01".
5) Select page: 2, address: 00, and set data: 29.
6) Select page: 2, address: 01, set data: 29, and press the PAUSE button.

5. B Page Table

Note: Fixed data-1: Initialized data. (Refer to “1. or 3. Initializing the B Page Data”.)
Fixed data-2: Modified data. (Refer to “2. or 4. Modification of B Page Data”.)

Address	Remark
00	Fixed data-2
01 to 16	Fixed data-1 (Initialized data)
17	Fixed data-2 (Modified data. Copy the data built in the same model.)
18	
19	
1A to 20	Fixed data-1 (Initialized data)
21	Fixed data-2
22 to 4F	Fixed data-1 (Initialized data)
50	Fixed data-2
51 to 53	Fixed data-1 (Initialized data)
54	Fixed data-2
55 to 5D	Fixed data-1 (Initialized data)
5E	Fixed data-2
5F	
60 to 6F	Fixed data-1 (Initialized data)
70	Fixed data-2
71 to FF	Fixed data-1 (Initialized data)

Table. 5-1-6.

1-2-3. INITIALIZATION OF E, F, 7 PAGE DATA

1. Initializing the E, F, 7 Page Data

Note1: If “Initializing the E, F, 7 Page Data” is performed, all data of the E page, F page and 7 page will be initialized. (It is impossible to initialize a single page.)

Note2: If the E, F, 7 page data has been initialized, following adjustments need to be performed again.
1) Modification of E, F, 7 page data
2) Camera system adjustments
3) IR transmitter adjustments

Adjusting page	F
Adjusting Address	10 to FF
Adjusting page	E
Adjusting Address	00 to FF
Adjusting page	7
Adjusting Address	DCR-TRV6/TRV6E/TRV11/TRV11E: 00 to 59 DCR-TRV20/TRV20E: 00 to A3 (Note3) 00 to B5 (Note4)

Note3: Camera microprocessor ver. 1.0
Note4: Camera microprocessor ver. 2.0 or later

Switch setting:
POWER .... CAMERA

Initializing Method:
1) Select page: 0, address: 01, and set data: 01.
2) Select page: 6, address: 01, and set the following data and press the PAUSE button.
   2D: DCR-TRV6/TRV11/TRV20 (NTSC)
   2F: DCR-TRV6E/TRV11E/TRV20E (PAL)
3) Select page: 6, address: 03, set data: 01, and press the PAUSE button.
4) Select page: 6, address: 02, and check that the data changes to “01”.
5) Perform “Modification of E, F, 7 Page Data”.

2. Modification of E, F, 7 Page Data

If the E, F, 7 page data has been initialized, change the data of the “Fixed data-2” address shown in the following table by manual input.

Version check of the camera microprocessor:
1) The data of page: 6, address: FF shows the version of the camera microprocessor (VC-240/241 board IC802).

Data	Version
01	1.0
02	2.0

Modifying Method:
1) Before changing the data, select page: 0, address: 01, and set data: 01.
2) New data for changing are not shown in the tables because they are different in destination. When changing the data, copy the data built in the same model.
   Note: If copy the data built in the different model, the camcorder may not operate.
3) When changing the data, press the PAUSE button of the adjustment remote commander each time when setting new data to write the data in the non-volatile memory.
4) Check that the data of adjustment addresses is the initial value. If not, change the data to the initial value.

Processing after Completing Modification of E, F, 7 Page data
1) Turn off the power and turn on again.

3. F Page Table

Note1: Fixed data-1: Initialized data. (Refer to “1. Initializing the E, F, 7 Page Data”.)
Fixed data-2: Modified data. (Refer to “2. Modification of E, F, 7 Page Data”.)

*1: DCR-TRV6/TRV6E/TRV11/TRV11E model only
*2: DCR-TRV20/TRV20E model only
*3: Fixed data-1
*4: NTSC/PAL
NTSC: DCR-TRV6/TRV11/TRV20
PAL: DCR-TRV6E/TRV11E/TRV20E
*5: VC-240 board: DCR-TRV20/TRV20E
VC-241 board: DCR-TRV6/TRV6E/TRV11/TRV11E

Address	Initial value *5		Remark
	VC-240	VC-241	
00 to 0F			
10			Fixed data-1 (Initialized data)
11			
12	80	80	36MHz origin osc adj. *1 54/66MHz origin osc adj. *2
13	80	80	Zoom center adj.
14			Fixed data-1 (Initialized data)
15			
16			
17	81	81	HALL adj.
18	5D	A0	
19	17	17	
1A	70	*3	HALL adj. *2
1B	62	*3	
1C	8D	*3	
1D	80	9A	Max gain adj.
1E	80	80	AWB & LV standard data input
1F	7A	7A	
20			Fixed data-1 (Initialized data)
21			
22			
23			
24			
25			
26			
27			
28			
29			
2A			
2B			
2C			
2D			
2E			
2F			
30	90	90	AWB & LV standard data input
31	3E	3E	
32	43	43	
33	59	59	
34			Fixed data-1
35	22	22	Color reproduction adj.
36			Fixed data-1
37	27/24 *4	27/24 *4	Color reproduction adj.
38			Fixed data-1 (Initialized data)
39			
3A			
3B			
3C	00	00	Color reproduction adj.
3D	F1/EF *4	F1/EF *4	
3E			Fixed data-1
3F			
40	80	80	Auto white balance adj.
41	40	40	
42			Fixed data-1 (Initialized data)
43			
44			
45			
46			
47			
48			
49			
4A	84	51	Flange back adj.
4B	4A	19	
4C	AD	22	
4D	47	20	
4E	F0	93	
4F	21	13	
50	80	00	Flange back adj. *1 MR adj. *2
51	80	00	
52	40	*3	MR adj. *2
53	C0	*3	
54	40	*3	
55	C0	*3	
56	40	*3	
57	C0	*3	
58	40	*3	
59	C0	*3	
5A	8F	46	Flange back adj.
5B	EF	00	
5C	19	19	
5D	00	00	
5E	1B	2A	
5F	86	00	
60	00	00	
61	00	00	
62	00	00	
63	00	*3	Flange back adj. *2
64			Fixed data-1 (Initialized data)
65			
66	47/5E *4	56/7C *4	Angular velocity sensor sensitivity adj.
67	51/60 *4	68/6F *4	
68			Fixed data-1
69	*3	00	Optical axis adj. *1
6A			Fixed data-1 (Initialized data)
6B			

Address	Initial value *5		Remark
	VC-240	VC-241	
6C	00	00	IR video carrier freq. Adj.
6D	00	00	IR video deviation Adj.
6E	00	00	IR audio deviation Adj.
6F			Fixed data-1
70	81	C4	Mechanical shutter adj.
71	0B	0E	
72	94	75	
73	09	0C	
74	66	26	
75	08	0B	
76	84	35	
77	07	0A	
78	9B	6E	
79	05	09	
7A	25	A5	
7B	43	61	
7C	44	A1	
7D	4A	79	
7E	44	64	
7F	47	81	
80	52	82	
81	3F	84	
82	44	B5	
83	30	7B	
84	21	20	
85			Fixed data-1 (Initialized data)
86			
87			
88			
89			
8A			
8B			
8C	02	*3	Max gain adj. *2
8D			Fixed data-1
8E			Fixed data-2 (Copy the data built in the same model.)
8F			
90			Fixed data-1 (Initialized data)
91			
92			
93			
94			
95			
96			
97			
98			
99			
9A			
9B			
9C			
9D			
9E	00	*3	Max gain adj. *2
9F	00	*6	*6: Fixed data-2
A0 to AF			Fixed data-1
B0			Fixed data-2

Address	Initial value *5		Remark
	VC-240	VC-241	
B1			Fixed data-2
B2 to B3			Fixed data-1
B4			Fixed data-2
B5 to BB			Fixed data-1
BC			Fixed data-2
BD to D0			Fixed data-1
D1			Fixed data-2
D2 to D4			Fixed data-1
D5			Fixed data-2
D6 to DC			Fixed data-1
DD			Fixed data-2
DE to FF			Fixed data-1 (Initialized data)

Table. 5-1-7.

4. E Page Table

Note1: Fixed data-1: Initialized data. (Refer to “1. Initializing the E, F, 7 Page Data”.)
Fixed data-2: Modified data. (Refer to “2. Modification of E, F, 7 Page Data”.)

Note2: Refer to “2. Modification of E, F, 7 Page Data” for the camera microprocessor version.

*1: Camera microprocessor ver. 1.0
*2: Camera microprocessor ver. 2.0 or later
*3: Fixed data-1
*4: DCR-TRV6/TRV6E/TRV11/TRV11E model only
*5: VC-240 board: DCR-TRV20/TRV20E
VC-241 board: DCR-TRV6/TRV6E/TRV11/TRV11E

Address	Initial value *5		Remark
	VC-240	VC-241	
00 to 02			Fixed data-1 (Initialized data)
03			Fixed data-2
04 to 11			Fixed data-1 (Initialized data)
12			Fixed data-2
13			Fixed data-1 (Initialized data)
14			
15			Fixed data-2
16 to 1A			Fixed data-1 (Initialized data)
1B			Fixed data-2
1C			Fixed data-1
1D			Fixed data-2
1E to 38			Fixed data-1
39			Fixed data-2
3A			
3B to 3C			Fixed data-1
3D			Fixed data-2
3E to 49			Fixed data-1 (Initialized data)
4A	63 *1 83 *2	*3	*1: Camera microprocessor ver. 1.0 *2: Camera microprocessor ver. 2.0 or later *3: Fixed data-1
4B to 4F			Fixed data-1 (Initialized data)
50			Fixed data-2
51 to 63			Fixed data-1 (Initialized data)
64			Fixed data-2
65			
66 to 69			Fixed data-1
6A			Fixed data-2
6B to 6D			Fixed data-1
6E			Fixed data-2
6F to 70			Fixed data-1
71			Fixed data-2 (Modified data. Copy the data built in the same model.)
72			
73			
74			
75 to 77			Fixed data-1 (Initialized data)
78			Fixed data-2
79 to 7E			Fixed data-1
7F			Fixed data-2
80 to 83			Fixed data-1
84			Fixed data-2
85			
86			
87			
88 to 8B			Fixed data-1
8C			Fixed data-2
8D to 8E			Fixed data-1
8F			Fixed data-2
90			
91			
92			
93 to 94			Fixed data-1 (Initialized data)
95			Fixed data-2
96			Fixed data-1 (Initialized data)
97			
98			Fixed data-2
99 to A1			Fixed data-1 (Initialized data)
A2			Fixed data-2
A3 to AF			Fixed data-1 (Initialized data)
B0			Fixed data-2 (Modified data. Copy the data built in the same model.)
B1			
B2			
B3			
B4			
B5			
B6			
B7			
B8			
B9			
BA			
BB to CE			Fixed data-1
CF			Fixed data-2
D0	*3	26/24 *6	Optical axis adj. *4 *6: NTSC/PAL
D1 to DD			Fixed data-1 (Initialized data)
DE	*3	5F/71 *6	Optical axis adj.*4 *6: NTSC/PAL
DF to FF			Fixed data-1 (Initialized data)

Table. 5-1-8.

5. 7 Page Table

Note1: Fixed data-1: Initialized data. (Refer to “1. Initializing the E, F, 7 Page Data”.)
Fixed data-2: Modified data. (Refer to “2. Modification of E, F, 7 Page Data”).

Note2: Addresses: 5A to B5 are only for DCR-TRV20/TRV20E model.

Note3: Addresses: A4 to B5 are only for the camera microprocessor version 2.0 or later.

*1: VC-240 board: DCR-TRV20/TRV20E
VC-241 board: DCR-TRV6/TRV6E/TRV11/TRV11E

Address	**Initial value** *1		**Remark**
	VC-240	VC-241	
00			Fixed data-2
01 to 03			Fixed data-1 (Initialized data)
04			Fixed data-2 (Modified data. Copy the data built in the same model.)
05			
06			
07			
08			
09 to 15			Fixed data-1 (Initialized data)
16			Fixed data-2 (Modified data. Copy the data built in the same model.)
17			
18			
19			
1A			
1B			Fixed data-1
1C			Fixed data-2 (Modified data. Copy the data built in the same model.)
1D			
1E			
1F			
20			
21 to 22			Fixed data-1
23	7A	7C	Mechanical shutter adj.
24	80	7F	
25	80	7C	
26	82	7B	
27 to 3C			Fixed data-1 (Initialized data)
3D			Fixed data-2
3E to 44			Fixed data-1 (Initialized data)
45			Fixed data-2
46 to 51			Fixed data-1
52			Fixed data-2
53			
54 to 59			Fixed data-1
5A to 84			Fixed data-1 (Note2)
85			Fixed data-2 (Note2)
86 to A3			Fixed data-1 (Note2) (Initialized data)
A4			Fixed data-2 (Note2) (Note3) (Modified data. Copy the data built in the same model.)
A5			
A6			
A7			
A8			
A9			
AA			Fixed data-2 (Note2) (Note3) (Modified data. Copy the data built in the same model.)
AB			
AC			
AD			
AE			
AF			
B0			
B1			
B2			
B3			
B4			
B5			

Table. 5-1-9.

1-3. CAMERA SYSTEM ADJUSTMENTS

Before perform the camera system adjustments, check that the specified values of “VIDEO SYSTEM ADJUSTMENT” are satisfied.

Note: NTSC model: DCR-TRV6/TRV11/TRV20
PAL model: DCR-TRV6E/TRV11E/TRV20E

1. 36MHz Origin Oscillation Adjustment (DCR-TRV6/TRV6E/TRV11/TRV11E) (VC-241 board)

Set the frequency of the clock for synchronization.
If deviated, the synchronization will be disrupted and the color will become inconsistent.

Subject	Not required
Measurement Point	Pin ⑯ of IC701 or pin ⑦ of IC1901
Measuring Instrument	Frequency counter
Adjustment Page	F
Adjustment Address	12
Specified Value	Pin ⑯ of IC701: f=18000000 ± 90Hz Pin ⑦ of IC1901: f=3579545 ± 18Hz (Note)

Note: SUPER LASER LINK .... ON (Red LED is lit)

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: F, address: 12, change the data and set the clock frequency (f) to the specified value.
3) Press the PAUSE button of the adjustment remote commander.
4) Select page: 0, address: 01, and set data: 00.

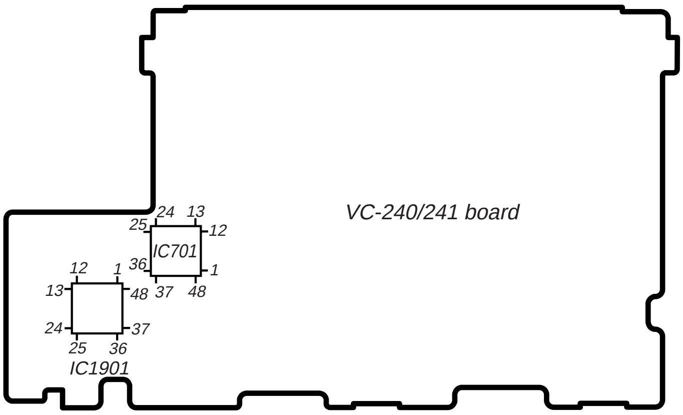


Fig. 5-1-6.

2. 54MHz/66MHz Origin Oscillation Adjustment (DCR-TRV20/TRV20E) (CD-252 board)

Set the frequency of the clock for synchronization.
If deviated, the synchronization will be disrupted and the color will become inconsistent.

Subject	Not required
Measurement Point	Pin ⑯ of IC701 of VC-240 board or pin ⑦ of IC1901 of VC-240 board
Measuring Instrument	Frequency counter
Adjustment Page	F
Adjustment Address	12
Specified Value	Pin ⑯ of IC701 of VC-240 board : f=33000000 ± 165Hz (NTSC) f=27000000 ± 134Hz (PAL) Pin ⑦ of IC1901 of VC-240 board: f=3579545 ± 18Hz (Note)

Note: SUPER LASER LINK .... ON (Red LED is lit)

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: F, address: 12, change the data and set the clock frequency (f) to the specified value.
3) Press the PAUSE button of the adjustment remote commander.
4) Select page: 0, address: 01, and set data: 00.

3. Zoom Key Center Adjustment

Set the A/D value center of the microprocessor to the center voltage of the zoom key.
If deviated, the zoom lens operates of itself, even if the zoom key is the center position.

Subject	Not required
Measurement Point	Display data of page: 6, address: 50
Measuring Instrument	Adjustment remote commander
Adjustment Page	F
Adjustment Address	13

Note: Don’t touch the zoom lever during adjustment.

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 6, address: 50, read the data, and this data is named D50.
3) Select page: F, address: 13, set data: D50.
4) Press the PAUSE button of the adjustment remote commander.
5) Select page: 0, address: 01, and set data: 00.

4. HALL Adjustment
(DCR-TRV6/TRV6E/TRV11/TRV11E)

For detecting the position of the lens iris, adjust AMP gain and offset.

Subject	Not required
Measurement Point	Display data of page 1 (Note1)
Measuring Instrument	Adjustment remote commander
Adjustment Page	F
Adjustment Address	17, 18, 19
Specified Value	When the data of page: 6, address: 01 is “01”: 15 to 19 (Note2) When the data of page: 6, address: 01 is “03”: 87 to 8B (Note2)

Note1: Displayed data of page 1 of the adjustment remote commander.

1 : XX : XX
IRIS display data

Note2: The PAUSE button of the Adjustment remote commander must be pressed.

Switch setting:

POWER .... CAMERA

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 6, address: 94, and set data: 17.
3) Select page: 6, address: 95, and set data: 89.
4) Select page: 6, address: 01, set data: 6D, and press the PAUSE button of the adjustment remote commander. (The HALL adjustment is performed and the adjustment data is stored in page: F, address: 17 to 19.)
5) Select page: 6, address: 02, and check that the data is “01”.
6) Select page: 6, address: 01, set data: 00, and press the PAUSE button.

Checking method:

1) Select page: 6, address: 04, and set data: 03.
2) Select page: 6, address: 01, set data: 01, and press the PAUSE button.
3) Select page: 1, and check that the IRIS display data (Note1) satisfies the specified value.
4) Select page: 6, address: 01, set data: 03, and press the PAUSE button.
5) Select page: 1, and check that the IRIS display data (Note1) satisfies the specified value.

Processing after Completing Adjustments:

1) Select page: 6, address: 01, set data: 00, and press the PAUSE button.
2) Select page: 6, address: 04, and set data: 00.
3) Select page: 6, address: 94, and set data: 00.
4) Select page: 6, address: 95, and set data: 00.
5) Select page: 0, address: 01, and set data: 00.

5. HALL Adjustment (DCR-TRV20/TRV20E)

For detecting the position of the lens iris and ND filter, adjust each AMP gain and offset.

Subject	Not required
Measurement Point	Display data of page 1 (Note1)
Measuring Instrument	Adjustment remote commander
Adjustment Page	F
Adjustment Address	17, 18, 19, 1A, 1B, 1C
Specified Value	When the data of page: 6, address: 01 is “01”: 15 to 19 (Note2) When the data of page: 6, address: 01 is “03”: 87 to 8B (Note2) When the data of page: 6, address: 01 is “69”: 87 to 8B (Note2) When the data of page: 6, address: 01 is “6B”: 15 to 19 (Note2)

Note1: Displayed data of page 1 of the adjustment remote commander.

1 : XX : XX
IRIS display data
ND display data

Note2: The PAUSE button of the Adjustment remote commander must be pressed.

Switch setting:

POWER .... CAMERA

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 6, address: 94, and set data: 17.
3) Select page: 6, address: 95, and set data: 89.
4) Select page: 6, address: 01, set data: 6D, and press the PAUSE button of the adjustment remote commander. (The HALL adjustment is performed and the adjustment data is stored in page: F, address: 17 to 1C.)
5) Select page: 6, address: 02, and check that the data is “01”.
6) Select page: 6, address: 01, set data: 00, and press the PAUSE button.

Checking method:

1) Select page: 6, address: 04, and set data: 03.
2) Select page: 6, address: 01, set data: 01, and press the PAUSE button.
3) Select page: 1, and check that the IRIS display data (Note1) satisfies the specified value.
4) Select page: 6, address: 01, set data: 03, and press the PAUSE button.
5) Select page: 1, and check that the IRIS display data (Note1) satisfies the specified value.
6) Select page: 6, address: 01, set data: 69, and press the PAUSE button.
7) Select page: 1, and check that the ND display data (Note1) satisfies the specified value.
8) Select page: 6, address: 01, set data: 6B, and press the PAUSE button.
9) Select page: 1, and check that the ND display data (Note1) satisfies the specified value.

Processing after Completing Adjustments:

1) Select page: 6, address: 01, set data: 00, and press the PAUSE button.
2) Select page: 6, address: 04, and set data: 00.
3) Select page: 6, address: 94, and set data: 00.
4) Select page: 6, address: 95, and set data: 00.
5) Select page: 0, address: 01, and set data: 00.

6. MR Adjustment (DCR-TRV20/TRV20E)

The MR (Magnet resistor) adjustment of the inner focus lens is carried out automatically. In whichever case, the focus will be deviated during auto focusing/manual focusing.

Subject	Not required
Measurement Point	Adjustment remote commander
Measuring Instrument	
Adjustment Page	F
Adjustment Address	50 to 59, 62
Specified Value	40 to C0 (Address: 50) 40 to C0 (Address: 51) 03 to 78 (Address: 52, 54, 56, 58) 88 to F8 (Address: 53, 55, 57, 59)

Note: Make the lens horizontal and perform this adjustment.

Switch setting:

POWER .... CAMERA

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 6, address: 01, set data: BD, and press the PAUSE button of the adjustment remote commander. (The MR adjustment is performed and the adjustment data is stored in page: F, address: 50 to 59, 62.)
3) Select page: 6, address: 02, and check that the data is “01”.
4) Select page: F, address: 50, and check that the data satisfies the specified value.
5) Select page: F, address: 51, and check that the data satisfies the specified value.
6) Select page: F, address: 52, 54, 56 and 58, and check that the data satisfies the specified value.
7) Select page: F, address: 53, 55, 57 and 59, and check that the data satisfies the specified value.

Processing after Completing Adjustments:

1) Select page: 6, address: 01, set data: 00, and press the PAUSE button.
2) Select page: 0, address: 01, set data: 00.
3) Turn off the power and turn on again.
4) Perform “Flange Back Adjustment”.

7. Flange Back Adjustment (Using Minipattern Box)

The inner focus lens flange back adjustment is carried out automatically. In whichever case, the focus will be deviated during auto focusing/manual focusing.

Subject	Siemens star chart with ND filter for the minipattern box (Note2)
Measurement Point	Check operation on TV monitor
Measuring Instrument	
Adjustment Page	F
Adjustment Address	DCR-TRV6/TRV6E/TRV11/TRV11E: 13, 4A to 51, 5A to 62 DCR-TRV20/TRV20E: 13, 4A to 4F, 5A to 63

Note1: Perform this adjustment after performing "HALL Adjustment" and "MR Adjustment (DCR-TRV20/TRV20E)".

Note2: Dark Siemens star chart.

Switch setting:

POWER .... CAMERA
NIGHT SHOT .... OFF

Preparations before adjustments:

The minipattern box is installed as shown in the following figure.

Note: The attachment lenses are not used.

Specified voltage: The specified voltage varies according to the minipattern box, so adjust the power supply output voltage to the specified voltage written on the sheet which is supplied with the minipattern box.

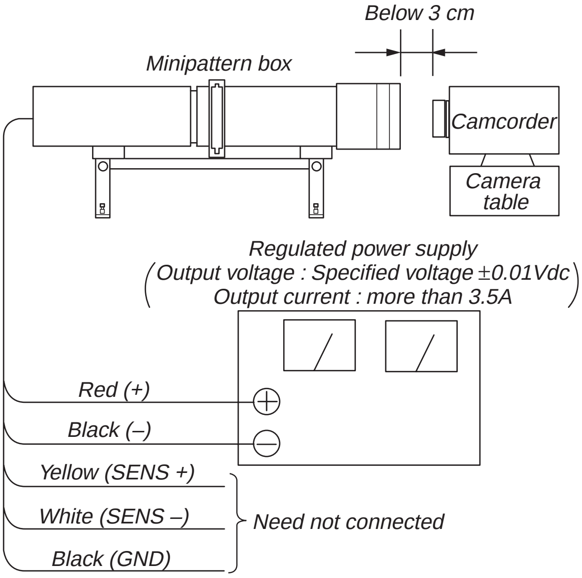


Fig. 5-1-7.

Adjusting method:

1) Install the minipattern box so that the distance between it and the front of the lens of the camcorder is less than 3cm.
2) Make the height of the minipattern box and the camcorder equal.
3) Check that the output voltage of the regulated power supply is the specified voltage.
4) Check that at both the zoom lens TELE end and WIDE end, the center of the Siemens star chart and center of the exposure screen coincide.
5) Select page: 0, address: 01, and set data: 01.
6) Select page: 6, address: 02, and check that the data is "00".
7) Select page: 6, address: 01, set data: 13, and press the PAUSE button of the adjustment remote commander.
   Note: Don't touch the zoom lever. If you touch the zoom lever, the zoom center adjustment data will be rewritten in the value which isn't correct.
8) Select page: 6, address: 01, set data: 27, and press the PAUSE button.
   (The adjustment data will be automatically input to the adjustment addresses.)
9) Select page: 6, address: 02, and check that the data is "01".
10) Only for DCR-TRV20/TRV20E model, select page: F, address: 63, and check that the data is "00" to "0E".

Processing after Completing Adjustments:

1) Select page: 6, address: 01, set data: 00, and press the PAUSE button.
2) Select page: 0, address: 01, and set data: 00.
3) Turn off the power and turn on again.
4) Perform "Flange Back Check".

8. Flange Back Adjustment (Using Flange Back Adjustment Chart and Subject More Than 500m Away)

The inner focus lens flange back adjustment is carried out automatically. In whichever case, the focus will be deviated during auto focusing/manual focusing.

8-1. Flange Back Adjustment (1)

Perform this adjustment after performing "HALL Adjustment" and "MR Adjustment (DCR-TRV20/TRV20E)".

Subject	Flange back adjustment chart (2.0 m from the front of the lens) (Luminance: 350 ± 50 lux)
Measurement Point	Check operation on TV monitor
Measuring Instrument	
Adjustment Page	F
Adjustment Address	DCR-TRV6/TRV6E/TRV11/TRV11E: 13, 4A to 51, 5A to 62 DCR-TRV20/TRV20E: 13, 4A to 4F, 5A to 63

Switch setting:

POWER .... CAMERA
NIGHT SHOT .... OFF

Adjusting method:

1) Check that at both the zoom lens TELE end and WIDE end, the center of the chart for the flange back adjustment and center of the exposure screen coincide.
2) Select page: 0, address: 01, and set data: 01.
3) Select page: 6, address: 02, and check that the data is "00".
4) Select page: 6, address: 01, set data: 13, and press the PAUSE button of the adjustment remote commander.
5) Select page: 6, address: 01, set data: 15, and press the PAUSE button.
   (The adjustment data will be automatically input to the adjustment addresses.)
6) Select page: 6, address: 02, and check that the data is "01".
7) Only for DCR-TRV20/TRV20E model, select page: F, address: 63, and check that the data is "00" to "0E".

Processing after Completing Adjustments:

1) Select page: 6, address: 01, set data: 00, and press the PAUSE button.
2) Turn off the power and turn on again.
3) Perform "Flange Back Adjustment (2)".

8-2. Flange Back Adjustment (2)

Perform this adjustment after performing "Flange Back Adjustment (1)".

Subject	Subject more than 500m away (Subjects with clear contrast such as buildings, etc.)
Measurement Point	Check operation on TV monitor
Measuring Instrument	
Adjustment Page	F
Adjustment Address	DCR-TRV6/TRV6E/TRV11/TRV11E: 13, 4A to 51, 5A to 62 DCR-TRV20/TRV20E: 13, 4A to 4F, 5A to 63

Switch setting:

POWER .... CAMERA
NIGHT SHOT .... OFF

Adjusting method:

1) Set the zoom lens to the TELE end and expose a subject that is more than 500 m away (subject with clear contrast such as building, etc.). (Nearby subjects less than 500 m away should not be in the screen.)
2) Select page: 0, address: 01, and set data: 01.
3) Select page: 6, address: 02, and check that the data is "00".
4) Select page: 6, address: 01, set data: 13, and press the PAUSE button of the adjustment remote commander.
   Note: Don't touch the zoom lever. If you touch the zoom lever, the zoom center adjustment data will be rewritten in the value which isn't correct.
5) Place a ND filter on the lens so that the optimum image is obtain.
6) Select page: 6, address: 01, set data: 29, and press the PAUSE button.
   (The adjustment data will be automatically input to the adjustment addresses.)
7) Select page: 6, address: 02, and check that the data is "01".

Processing after Completing Adjustments:

1) Select page: 6, address: 01, set data: 00, and press the PAUSE button.
2) Select page: 0, address: 01, and set data: 00.
3) Turn off the power and turn on again.
4) Perform "Flange Back Check".

9. Flange Back Check

Subject	Siemens star (2.0m from the front of the lens) (Luminance : approx. 200 lux)
Measurement Point	Check operation on TV monitor
Measuring Instrument	
Specified Value	Focused at the TELE end and WIDE end.

Switch setting:

1) POWER .... CAMERA
2) NIGHT SHOT .... OFF
3) DIGITAL ZOOM (Menu display) .... OFF
4) STEADY SHOT (Menu display) .... OFF

Note: When the auto focus is ON, the lens can be checked if it is focused or not by observing the data on the page 1 of the adjustment remote commander.
1) Select page: 6, address: 04, and set data: 0F.
2) Page 1 shows the state of the focus.
1 : 00 : XX
Odd: Focused
Even: Unfocused

Checking method:

1) Place the Siemens star 2.0m from the front of the lens.
2) To open the IRIS, decrease the luminous intensity to the Siemens star up to a point before noise appear on the image.
3) Shoot the Siemens star with the zoom TELE end.
4) Turn on the auto focus.
5) Check that the lens is focused (Note).
6) Select page: 6, address: 21, and set data: 10.
7) Shoot the Siemens star with the zoom WIDE end.
8) Observe the TV monitor and check that the lens is focused.

Processing after Completing Adjustments:

1) Select page: 6, address: 21, and set data: 00.
2) Select page: 6, address: 04, and set data: 00.

10. Optical Axis Adjustment (DCR-TRV6/TRV6E/TRV11/TRV11E)

Align the lens Optical Axis with that of the CCD imager. If deviated, center of picture can lose focus when zoom is operated from the WIDE end to the TELE end.

Subject	Siemens star	
Measurement Point	Check on the monitor TV	
Measuring Instrument		
Adjustment Page	F	E
Adjustment Address	69	D0, DE

Switch setting:

1) POWER .... CAMERA

Preparations before adjustments:

1) Playback the monoscope segment of the system check tape (XH5-5 (NTSC), XH5-5P (PAL)).
2) Attach the optical axis frame chart (transparent) on the monitor TV screen. Center of monoscope image and that that of optical axis frame must be agree.
3) Set to the camera mode.

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 6, address: 40, and set data: 02.
3) Select page: 6, address: 41, and set data: 01.
4) Input the data of Table 5-1-9 to each adjustment addresses.
   Note: Press the PAUSE button each time to set the data.

Page: F	Page: E			
Address: 69	Address: D0		Address: DE	
	NTSC	PAL	NTSC	PAL
00	22	26	5F	71

Table. 5-1-10.

5) Place the Siemens star 2.0 m away from the front of the lens.
6) Shoot the Siemens star with the zoom TELE end.
7) Point the lens toward the Siemens star chart until center of the Siemens star is located in the center of the optical axis frame.
8) Shoot the Siemens star with the zoom WIDE end.
9) Measure on the monitor TV screen in which area of the optical axis frame the center of the Siemens star is located. Measure the amount of displacement (distance between the center of the Siemens star and the center of the optical axis frame.) The measurement value is named L1.
10) Read the correction data corresponding to the area from Table 5-1-10.
11) Input the correction data to each adjustment address.
    Note: Press the PAUSE button each time to set the data.
12) Shoot the Siemens star with the zoom TELE end.
13) Point the lens toward the Siemens star chart until center of the Siemens star is located in the center of the optical axis frame.
14) Shoot the Siemens star with the zoom WIDE end.
15) Measure the amount of displacement (distance between the center of the Siemens star and the center of the optical axis frame.) The measurement value is named L2.
16) Compare the values L1 and L2, and confirm that L2 is smaller than L1. If L2 is lager than L1, input the data of Table 5-1-9 to each adjustment address.
    Note: Press the PAUSE button each time to set the data.

Note: NTSC model: DCR-TRV6/TRV11
PAL model: DCR-TRV6E/TRV11E

Area	Display phase	Connection data				
		Page: F	Page: E			
		Address: 69	Address: D0		Address: DE	
			NTSC	PAL	NTSC	PAL
1	22.6° to 67.5°	01	22	26	57	69
2	67.6° to 112.5°	02	22	26	5F	71
3	112.6° to 157.5°	03	22	26	67	79
4	157.6° to 202.5°	04	02	26	69	7D
5	202.6° to 247.5°	05	22	26	67	79
6	247.6° to 292.5°	06	22	26	5F	71
7	292.6° to 337.5°	07	22	26	57	69
8	337.6° to 22.5°	08	02	26	55	65

Table. 5-1-11.

Processing after Completing Adjustments:

1) Select page: 0, address: 01, and set data: 00.
2) Select page: 6, address: 40, and set data: 00.
3) Select page: 6, address: 41, and set data: 00.

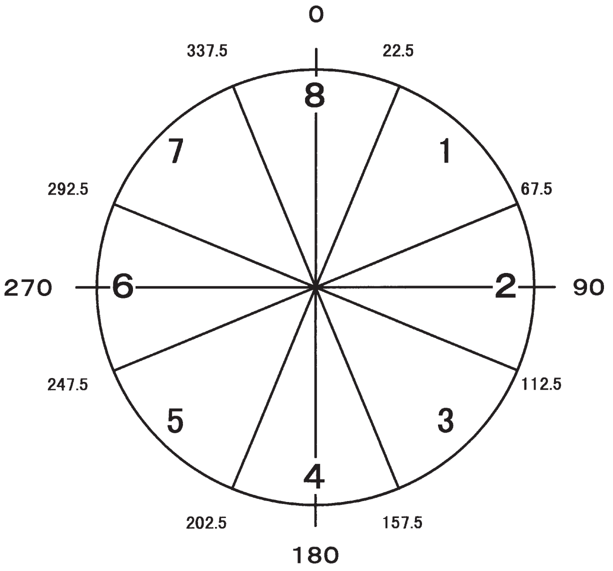


Fig. 5-1-8.

11. Picture Frame Setting

Subject	Color bar chart (Color reproduction adjustment frame) (1.5m from the front of the lens)
Measurement Point	Video output terminal
Measuring Instrument	Oscilloscope and TV monitor
Specified Value	A=B, C=D, E=F

Switch setting:

1) POWER .... CAMERA
2) NIGHT SHOT .... OFF
3) DIGITAL ZOOM (Menu display) .... OFF
4) STEADY SHOT (Menu display) .... OFF

Setting method:

1) Adjust the zoom and the camera direction, and set to the specified position.
2) Mark the position of the picture frame on the monitor display, and adjust the picture frame to this position in following adjustments using “Color reproduction adjustment frame”.

Check on the oscilloscope

1. Horizontal period

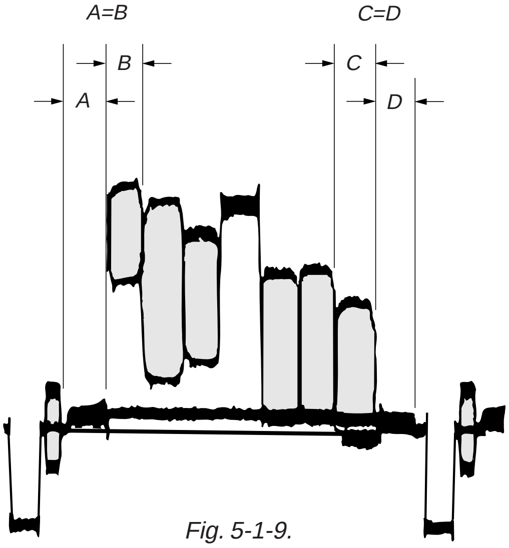


Fig. 5-1-9.

2. Vertical period

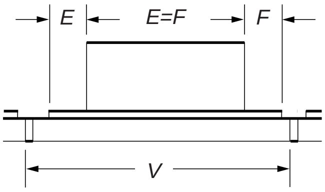


Fig. 5-1-10.

Check on the monitor TV (Underscanned mode)

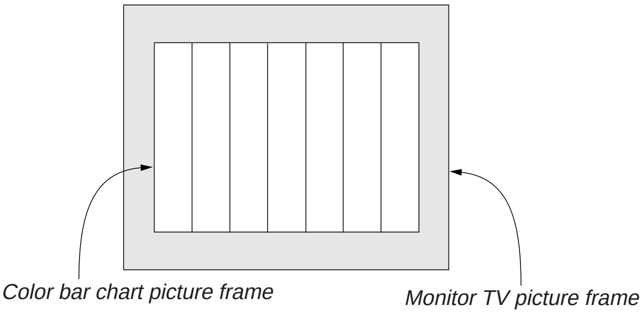


Fig. 5-1-11.

12. Color Reproduction Adjustment

Adjust the color Separation matrix coefficient so that proper color reproduction is produced.

Subject	Color bar chart (Color reproduction adjustment frame)
Measurement Point	Video output terminal
Measuring Instrument	Vectorscope
Adjustment Page	F
Adjustment Address	35, 37, 3C, 3D
Specified Value	All color luminance points should settle within each color reproduction frame.

Note: NTSC model: DCR-TRV6/TRV11/TRV20
PAL model: DCR-TRV6E/TRV11E/TRV20E

Switch setting:

1) POWER .... CAMERA
2) NIGHT SHOT .... OFF
3) DIGITAL ZOOM (Menu display) .... OFF
4) STEADY SHOT (Menu display) .... OFF

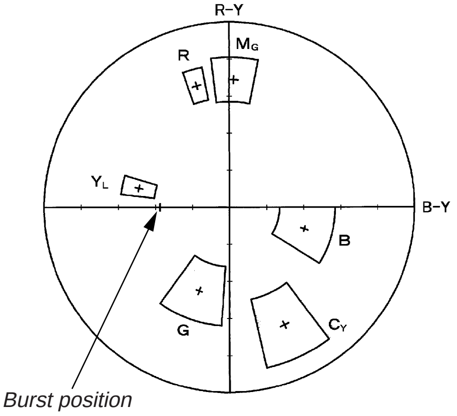
Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: F, address: 8E, set the following data and press the PAUSE button.
    29: DCR-TRV6/TRV6E/TRV11/TRV11E
    14: DCR-TRV20/TRV20E
3) Select page: F, address: C0, set the following data and press the PAUSE button.
    37: NTSC model
    B7: PAL model
4) Select page: 6, address: 01, set data: 3D, and press the PAUSE button.
5) Adjust the GAIN and PHASE of the vectorscope, and adjust the burst luminance point to the burst position of the color reproduction frame.
6) Change the data of page: F, address: 35, 37, 3C and 3D, and settle each color luminance point in each color reproduction frame.
    Note: Be sure to press the PAUSE button of the adjustment remote commander before changing the addresses. If not, the new data will not be written to the memory.

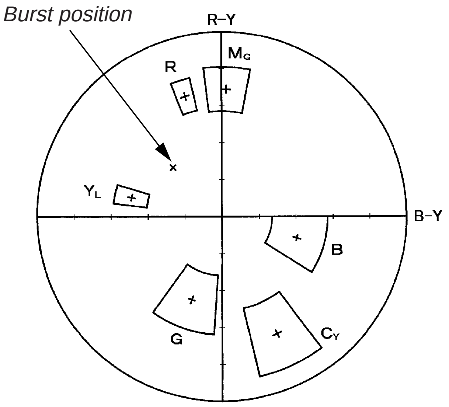
Processing after Completing Adjustments:

1) Select page: F, address: 8E, set the following data, and press the PAUSE button.
    2E: DCR-TRV6/TRV6E/TRV11/TRV11E
    17: DCR-TRV20
    14: DCR-TRV20E
2) Select page: 6, address: 01, set data: 00, and press the PAUSE button.
3) Select page: 0, address: 01, and set data: 00.

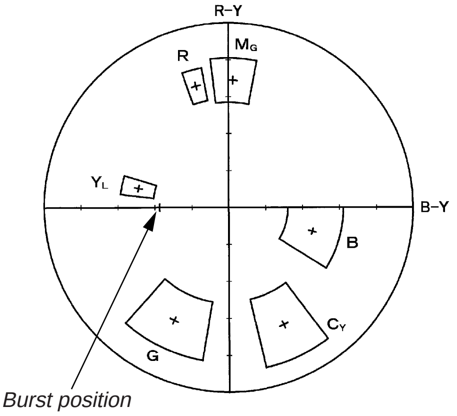
For DCR-TRV6/TRV11 (NTSC)



For DCR-TRV6E/TRV11E (PAL)



For DCR-TRV20 (NTSC)



For DCR-TRV20E (PAL)

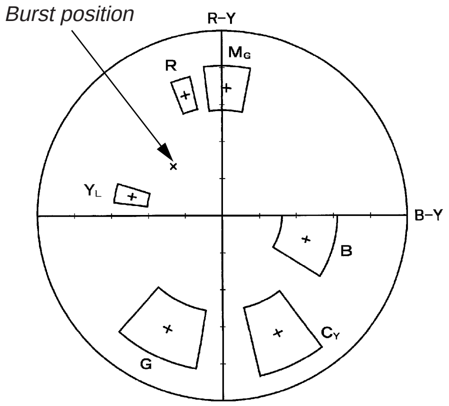


Fig. 5-1-12.

13. MAX GAIN Adjustment

Setting the minimum illumination.
If it is not consistent, the image level required for taking subjects in low illuminance will not be produced (dark).

13-1. MAX GAIN Adjustment (DCR-TRV6/TRV6E/TRV11/TRV11E)

Subject	Clear chart (Color reproduction adjustment frame)
Adjustment Page	F
Adjustment Address	1D

Switch setting:

1) POWER .... CAMERA
2) NIGHT SHOT .... OFF
3) STEADY SHOT (Menu display) .... OFF

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 6, address: 96, and set data: 00.
3) Select page: 6, address: 97, and set data: 27.
4) Select page: 6, address: 01, set data: 6F, and press the PAUSE button of the adjustment remote commander.
   (The MAX GAIN adjustment is performed and the adjustment data is stored in page: F, address: 1D.)
5) Select page: 6, address: 02, and check that the data is “01”.

Processing after Completing Adjustments:

1) Select page: 6, address: 01, set data: 00, and press the PAUSE button.
2) Select page: 6, address: 97, and set data: 00.
3) Select page: 0, address: 01, and set data: 00.

13-2. MAX GAIN Data Input (DCR-TRV20/TRV20E)

Adjustment Page	F
Adjustment Address	1D, 8C, 9E, 9F

Input method:

1) Select page: 0, address: 01, and set data: 01.
2) Input the following data to each address.
   Note: Press the PAUSE button of the adjustment remote commander each time to set the data.

Address	Data
1D	80
8C	02
9E	00
9F	00

3) Select page: 0, address: 01, and set data: 00.

14. Auto White Balance & LV Standard Data Input

Subject	Clear chart (Color reproduction adjustment frame)
Measurement Point	Display data of page 1 (Note3)
Measuring Instrument	Adjustment remote commander
Adjustment Page	F
Adjustment Address	1E, 1F, 30 to 33
Specified Value	0FF0 to 1010

Note1: This adjustment should be carried out upon completion of “Color Reproduction Adjustment”.

Note2: Check that the data of page: 6, address: 02 is “00”. If not, turn off the power and turn on again.

Note3: Displayed data of page 1 of the adjustment remote commander.

1 : XX : XX
Display data

Switch setting:

1) POWER .... CAMERA
2) NIGHT SHOT .... OFF
3) DIGITAL ZOOM (Menu display) .... OFF

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 6, address: 01, set data: 11, and press the PAUSE button of the adjustment remote commander.
3) Select page: 6, address: 01, set data: 0D, and press the PAUSE button.
   (When the standard data is take in, the data will be automatically input to page: F, address: 1E, 1F, 30 to 33.)
4) Select page: 6, address: 02, and check that the data is “01”.
5) Select page: F, address: 10, set data: 2E, and press the PAUSE button.
6) Select page: 1, and check that the display data (Note3) satisfies the specified value.

Processing after Completing Adjustments:

1) Select page: F, address: 10, set data: 00, and press the PAUSE button.
2) Select page: 6, address: 01, set data: 00, and press the PAUSE button.
3) Select page: 0, address: 01, and set data: 00.
4) Perform “Auto White Balance Adjustment”.

15. Auto White Balance Adjustment

Adjust to the proper auto white balance output data.
If it is not correct, auto white balance and color reproducibility will be poor.

Subject	Clear chart (Color reproduction adjustment frame)
Filter	Filter C14 for color temperature correction
Measurement Point	Display data of page 1 (Note2)
Measuring Instrument	Adjustment remote commander
Adjustment Page	F
Adjustment Address	40, 41
Specified Value	DCR-TRV6/TRV11: R ratio: 2B00 to 2C00 B ratio: 5B00 to 5C00 DCR-TRV6E/TRV11E: R ratio: 2D00 to 2E00 B ratio: 5B00 to 5C00 DCR-TRV20/TRV20E: R ratio: 2C30 to 2D30 B ratio: 5F20 to 6020

Note1: Perform "Auto White Balance & LV Standard Data Input" before this adjustment.

Note2: Displayed data of page 1 of the adjustment remote commander.

1 : XX : XX
Display data

Switch setting:

1) POWER .... CAMERA
2) NIGHT SHOT .... OFF
3) DIGITAL ZOOM (Menu display) .... OFF

Adjusting method:

1) Place the C14 filter for color temperature correction on the lens.
2) Select page: 0, address: 01, and set data: 01.
3) Select page: F, address: 42 to 45, and note down the data of each address.
4) Input the following data to page: F, addresses: 42 to 45.

Address	42	43	44	45	
Data	2B	80	5B	80	DCR-TRV6/TRV11
	2D	80	5B	80	DCR-TRV6E/TRV11E
	2C	B0	5F	A0	DCR-TRV20/TRV20E

Note: Press the PAUSE button each time to set the data.

5) Select page: 6, address: 01, set data: 83, and press the PAUSE button.
6) Select page: 6, address: 01, set data: 81, and press the PAUSE button.
(The auto white balance adjustment is performed and the adjustment data is stored in page: F, address: 40 and 41.)
7) Select page: 6, address: 02, and check that the data is "01".
8) Select page: 6, address: 01, set data: 3F, and press the PAUSE button.
9) Select page: 6, address: 04, and set data: 04.
10) Select page: 1, and check that the display data (Note2) satisfies the R ratio specified value.
11) Select page: 6, address: 04, and set data: 05.
12) Select page: 1, and check that the display data (Note2) satisfies the B ratio specified value.
13) Select page: F, address: 42 to 45, and input the data noted down at step 3).
Note: After setting each data, be sure to press the PAUSE button of the adjustment remote commander.

Processing after Completing Adjustments:

1) Select page: 6, address: 01, set data: 00, and press the PAUSE button.
2) Select page: 6, address: 04, and set data: 00.
3) Select page: 0, address: 01, and set data: 00.

16. White Balance Check

Subject	Clear chart (Color reproduction adjustment frame)
Filter	Filter C14 for color temperature correction ND filter 1.0 and 0.4 and 0.1
Measurement Point	Video output terminal
Measuring Instrument	Vectorscope
Specified Value	Fig. 5-1-13. A to C

Switch setting:

1) POWER .... CAMERA
2) NIGHT SHOT .... OFF
3) DIGITAL ZOOM (Menu display) .... OFF

Checking method:

1) Check that the lens is not covered with either filter.
2) Select page: 6, address: 01, set data: 0F, and press the PAUSE button of the adjustment remote commander.
3) Check that the center of the white luminance point is within the circle shown Fig. 5-1-13. (A).
4) Select page: 6, address: 01, set data: 23, and press the PAUSE button.
5) Place the C14 filter on the lens.
6) Check that the center of the white luminance point settles in the circle shown Fig. 5-1-13. (B).
7) Remove the C14 filter, and place the ND filter 1.5 (1.0+0.4+0.1) on the lens.
8) Check that the white luminance point stopped moving, and then remove the ND filter 1.5.
9) Check that the center of the white luminance point settles within the circle shown Fig. 5-1-13. (C).

Processing after Completing Adjustments:

1) Select page: 6, address: 01, set data: 00, and press the PAUSE button.

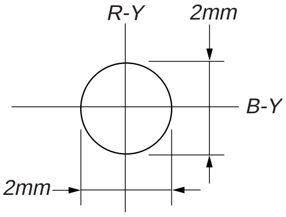


Fig. 5-1-13. (A)

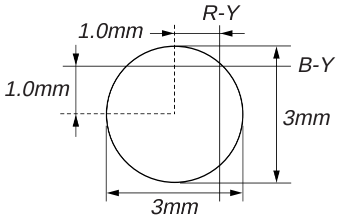


Fig. 5-1-13. (B)

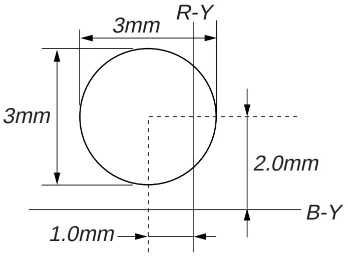


Fig. 5-1-13. (C)

17. Mechanical Shutter Adjustment

Adjust the period which the mechanical shutter is closed, and compensate the exposure.

17-1. Mechanical Shutter Data Input (DCR-TRV6/TRV6E/TRV11/TRV11E)

Adjustment Page	F	7
Adjustment Address	70 to 84	23 to 26

Input method:

1) Select page: 0, address: 01, and set data: 01.
2) Input the following data to page: F, addresses: 70 to 84.
   Note: Press the PAUSE button of the adjustment remote commander each time to set the data.

Address	Data
70	C4
71	0E
72	75
73	0C
74	26
75	0B
76	35
77	0A
78	6E
79	09
7A	A5
7B	61
7C	A1
7D	79
7E	64
7F	81
80	82
81	84
82	B5
83	7B
84	20

3) Input the following data to page: 7, addresses: 23 to 26.
   Note: Press the PAUSE button of the adjustment remote commander each time to set the data.

Address	Data
23	7C
24	7F
25	7C
26	7B

4) Select page: 0, address: 01, and set data: 00.

17-2. Mechanical Shutter Data Input (DCR-TRV20/TRV20E)

Adjustment Page	F	7
Adjustment Address	70 to 84	23 to 26

Input method:

1) Select page: 0, address: 01, and set data: 01.
2) Input the following data to page: F, addresses: 70 to 84.

Note: Press the PAUSE button of the adjustment remote commander each time to set the data.

Address	Data
70	81
71	0B
72	94
73	09
74	66
75	08
76	84
77	07
78	9B
79	05
7A	25
7B	43
7C	44
7D	4A
7E	44
7F	47
80	52
81	3F
82	44
83	30
84	21

3) Input the following data to page: 7, addresses: 23 to 26.

Note: Press the PAUSE button of the adjustment remote commander each time to set the data.

Address	Data
23	7A
24	80
25	80
26	82

4) Select page: 0, address: 01, and set data: 00.

18. Angular Velocity Sensor Sensitivity Adjustment

- This adjustment is performed only when replacing the angular velocity sensor.
  Although this adjustment need not be performed when the circuit is damaged, etc., check the operations.
- Note down the sensitivity displayed on the angular velocity sensor of the repair parts. At this time, note down also to which board it was attached to.
  Be sure to check because if attached incorrectly, the screen will vibrate up and down or left and right during hand-shake correction operations.

Precautions on the Parts Replacement

There are two types of repair parts.

Type A: ENC03JA
Type B: ENC03JB

Replace the broken sensor with a same type sensor. If replace with other type parts, the image will vibrate up and down or left and right during hand-shake correction operations. After replacing, re-adjust according to the adjusting method after replacement.

Precautions on Angular Velocity Sensor

The sensor incorporates a precision oscillator. Handle it with care as if it dropped, the balance of the oscillator will be disrupted and operations will not be performed properly.

Adjustment Page	F
Adjustment Address	66, 67

Note1: The sensor sensitivity of SE3051 and SE3052 of the JK-188 board is written only on the repair parts.

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Read the sensor sensitivity written on SE3051 (PITCH sensor) of the JK-188 board, and take this as S_{3051}.
3) Read the sensor sensitivity written on SE3052 (YAW sensor) of the JK-188 board, and take this as S_{3052}.
4) Calculate D_{66}' and D_{67}' using the following equation (decimal calculation).

DCR-TRV6/TRV11 (NTSC model)
$D_{66}' = 54 / S_{3051}$
$D_{67}' = 61 / S_{3052}$
DCR-TRV6E/TRV11E (PAL model)
$D_{66}' = 76 / S_{3051}$
$D_{67}' = 72 / S_{3052}$
DCR-TRV20 (NTSC model)
$D_{66}' = 53 / S_{3051}$
$D_{67}' = 53 / S_{3052}$
DCR-TRV20E (PAL model)
$D_{66}' = 60 / S_{3051}$
$D_{67}' = 60 / S_{3052}$

5) Convert D_{66}' and D_{67}' into hexadecimal digits, to obtain D_{66} and D_{67}. (Round off decimal points)
6) Select page: F, address: 66, set data: D_{66}, and press the PAUSE button of the adjustment remote commander.
7) Select page: F, address: 67, set data: D_{67}, and press the PAUSE button of the adjustment remote commander.

Processing after Completing Adjustments

1) Select page: 0, address: 01, and set data: 00.
2) Check that the steady shot operations have been performed normally.

1-4. COLOR ELECTRONIC VIEWFINDER SYSTEM ADJUSTMENT

Note 1: The back light (fluorescent tube) is driven by a high voltage AC power supply. Therefore, do not touch the back light holder to avoid electrical shock.

Note 2: When replacing the LCD unit, be careful to prevent damages caused by static electricity.

Note 3: Set the VF BRIGHT (Menu display) to the center.
Close the LCD panel.

Note 4: As the PANEL CLOSE switch (CK-92/94 board S3201) is attached to the cabinet (R), this cabinet must be attached when performing adjustments.
If you perform the adjustments with cabinet (R) removed, set the following data.
1) Select page: 2, address: 0E, and set data: 67.
2) Select page: 2, address: 0F, and set data: 01.
Reset the data after completing adjustment.
1) Select page: 2, address: 0E, and set data: 00.
2) Select page: 2, address: 0F, and set data: 00.

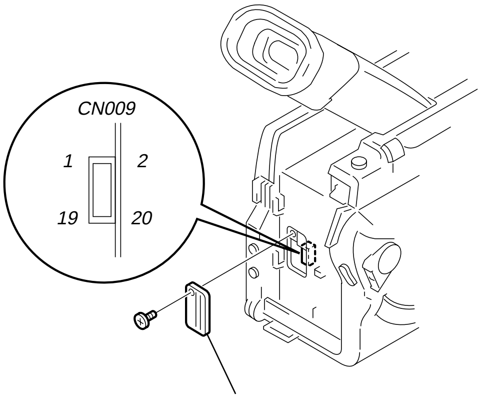
Note 5: CK-92 board: DCR-TRV11/TRV11E/TRV20
CK-94 board: DCR-TRV6/TRV6E/TRV20E
VC-240 board: DCR-TRV20/TRV20E
VC-241 board: DCR-TRV6/TRV6E/TRV11/TRV11E

[Adjusting connector]

Most of the measuring points for adjusting the viewfinder system are concentrated in CN009 of the VC-240/241 board.
Connect the Measuring Instruments via the CPC-8 jig (J-6082-388-A).
The following table shows the Pin No. and signal name of CN009.

Pin No.	Signal Name	Pin No.	Signal Name
1	LANC SIG	2	EVF BL +
3	EVF BL –	4	EVF VG
5	EVF VCO	6	GND
7	PANEL VG	8	PD VCO
9	H START	10	XHD/PSIG
11	PANEL COM	12	TMS
13	TCK	14	JIG TDI
15	JIG TDO	16	GND
17	SWP	18	RF IN/LANC JACK IN
19	GND	20	RF MON

Table. 5-1-12.



Remove the CPC lid

Fig. 5-1-14.

1. VCO Adjustment (VC-240/241 board)

Set the VCO free-run frequency. If deviated, the EVF screen will be blurred.

Mode	Camera
Subject	Arbitrary
Measurement Point	Pin ⑤ of CN009 (VCO)
Measuring Instrument	Frequency counter
Adjustment Page	D
Adjustment Address	92, 93
Specified Value	f = 15734 ± 30Hz (NTSC) f = 15625 ± 30Hz (PAL)

Note: NTSC model: DCR-TRV6/TRV11/TRV20
PAL model: DCR-TRV6E/TRV11E/TRV20E

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 92, change the data and set the VCO frequency (f) to the specified value.
   Note: The VCO adjustment mode is set up automatically, so the EVF screen falls into the disorder.
3) Press the PAUSE button of the adjustment remote commander.
4) Select page: D, address: 93, set the same data as page: D, address: 92, and press the PAUSE button.
5) Select page: 0, address: 01, and set data: 00.

2. RGB AMP Adjustment (VC-240/241 board)

Set the D range of the RGB decoder used to drive the LCD to the specified value. If deviated, the LCD screen will become blackish or saturated (whitish).

Mode	Camera
Subject	Arbitrary
Measurement Point	Pin ④ of CN009 (EVF VG)
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	95
Specified Value	A = 7.00 ± 0.05V

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 95, change the data and set the voltage (A) between the reversed waveform pedestal and non-reversed waveform pedestal to the specified value.
   Note: The RGB AMP adjustment mode is set up automatically, so the 3 steps signal is displayed on the EVF screen.
3) Press the PAUSE button.
4) Select page: 0, address: 01, and set data: 00.

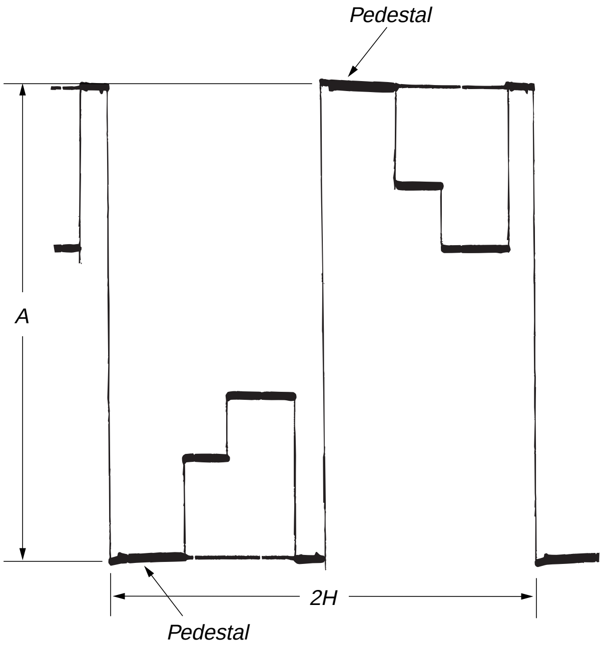


Fig. 5-1-15.

3. Contrast Adjustment (VC-240/241 board)

Set the level of the VIDEO signal for driving the LCD to the specified value. If deviated, the screen image will be blackish or saturated (whitish).

Mode	Camera
Subject	Arbitrary
Measurement Point	Pin ④ of CN009 (EVF VG)
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	99
Specified Value	DCR-TRV20/TRV20E: A=2.40 ± 0.05V DCR-TRV6/TRV6E/TRV11/TRV11E: A=2.20 ± 0.05V

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 99, change the data and set the voltage (A) between the pedestal (0 IRE) and 100 IRE to the specified value.
   (The data of address: 99 should be “00” to “7F”.)
   Note: The contrast adjustment mode is set up automatically, so the 3 steps signal is displayed on the EVF screen.
3) Press the PAUSE button.
4) Select page: 0, address: 01, and set data: 00.

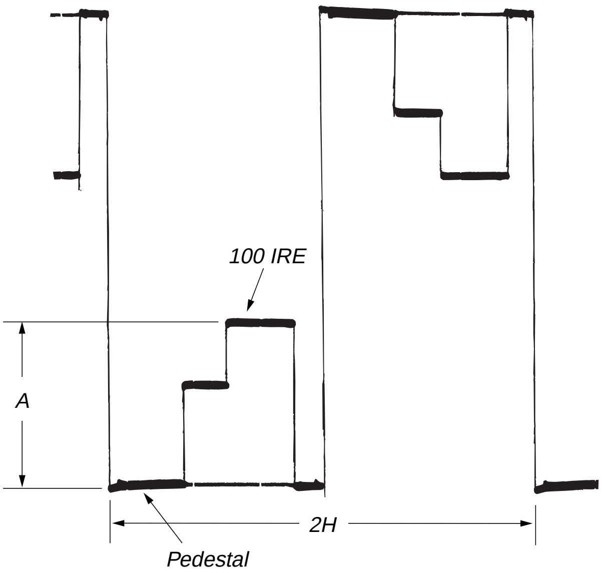


Fig. 5-1-16.

4. Backlight Consumption Current Adjustment (VC-240/241 board)

Set the backlight luminance and color temperature.
If deviated, the image may become dark or bright.

Mode	Camera
Subject	Arbitrary
Measurement Point	+ Probe: Pin ② of CN009 (EVF BL+) – Probe: Pin ③ of CN009 (EVF BL–)
Measuring Instrument	Digital voltmeter
Adjustment Page	D
Adjustment Address	9C, 9D, 9E
Specified Value	DCR-TRV20/TRV20E: BRIGHT mode : A=25.0 ± 1.5mVdc NORMAL mode : A=15.0 ± 1.5mVdc DCR-TRV6/TRV6E/TRV11/TRV11E: BRIGHT mode : A=17.0 ± 1.5mVdc NORMAL mode : A=10.0 ± 1.5mVdc

Note1: Perform the adjustment in the following order.

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 9C to 9F, and set the data to the initial value.
   Note: To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.

Address	9C	9D	9E	9F
Data	E0	E0	11	1F

3) Select page: D, address: 9D, change the data and set the voltage difference (A) between Pin ② of CN009 (EVF BL+) and Pin ③ of CN009 (EVF BL–) to the specified value of BRIGHT mode.
   (The data of address: 9D should be “C0” to “FF”.)
   Note: The backlight consumption current adjustment BRIGHT mode is set up automatically.
4) Press the PAUSE button of the adjustment remote commander.
5) Select page: D, address: 9C, set the same data as page: D, address: 9D, and press the PAUSE button.
6) Select page: D, address: 9E, change the data and set the voltage difference (A) between Pin ② and Pin ③ to the specified value of NORMAL mode.
   (The data of address: 9E should be “00” to “1F”.)
   Note: The backlight consumption current adjustment NORMAL mode is set up automatically.
7) Press the PAUSE button.
8) Select page: 0, address: 01, and set data: 00.

5. White Balance Adjustment (VC-240/241 board)

Correct the white balance.
If deviated, the reproduction of the EVF screen may degenerate.

Mode	Camera
Subject	Arbitrary
Measurement Point	Check on EVF screen
Measuring Instrument	
Adjustment Page	D
Adjustment Address	97, 98
Specified Value	The EVF screen should not be colored.

Note: Check the white balance only when replacing the following parts. If necessary, adjust them.
1. LCD panel
2. Light induction plate
3. IC1802

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 97 and 98, set the data to the initial value.
   Note: To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.

Address	97	98
Data	80	80

3) Check that the EVF screen is not colored. If colored, change the data of page: D, address: 97 and 98 so that the EVF screen is not colored.
   Note: To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.
   When address: 97 or 98 is selected, the white balance adjustment mode is set up automatically.
4) Select page: 0, address: 01, and set data: 00.

1-5. LCD SYSTEM ADJUSTMENT

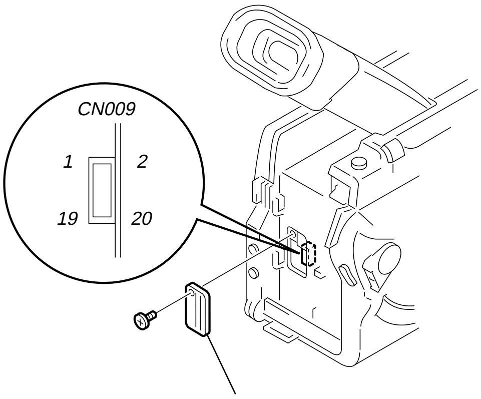
Note 1: The back light (fluorescent tube) is driven by a high voltage AC power supply. Therefore, do not touch the back light holder to avoid electrical shock.
Note 2: When replacing the LCD unit, be careful to prevent damages caused by static electricity.
Note 3: Set the LCD BRIGHT to the center.
Set the LCD COLOR (Menu display) to the center.
Note 4: PD-123 board: DCR-TRV11/TRV11E/TRV20
PD-124 board: DCR-TRV6/TRV6E/TRV20E
VC-240 board: DCR-TRV20/TRV20E
VC-241 board: DCR-TRV6/TRV6E/TRV11/TRV11E

[Adjusting connector]

Most of the measuring points for adjusting the LCD system are concentrated in CN009 of the VC-240/241 board.
Connect the Measuring Instruments via the CPC-8 jig (J-6082-388-A).
The following table shows the Pin No. and signal name of CN009.

Pin No.	Signal Name	Pin No.	Signal Name
1	LANC SIG	2	EVF BL +
3	EVF BL –	4	EVF VG
5	EVF VCO	6	GND
7	PANEL VG	8	PD VCO
9	H START	10	XHD/PSIG
11	PANEL COM	12	TMS
13	TCK	14	JIG TDI
15	JIG TDO	16	GND
17	SWP	18	RF IN/LANC JACK IN
19	GND	20	RF MON

Table. 5-1-13.



Remove the CPC lid

Fig. 5-1-17.

1-5-1. LCD SYSTEM ADJUSTMENT (DCR-TRV11/TRV11E/TRV20)

1. VCO Adjustment (PD-123 board)

Set the VCO free-run frequency. If deviated, the LCD screen will be blurred.

Mode	Camera
Subject	Arbitrary
Measurement Point	Pin ⑨ of CN009 (H START) of VC-240/241 board
Measuring Instrument	Frequency counter
Adjustment Page	D
Adjustment Address	A2, A3
Specified Value	f = 15734 ± 30Hz (NTSC) f = 15625 ± 30Hz (PAL)

Note: NTSC: DCR-TRV11/TRV20
PAL: DCR-TRV11E

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: A2, change the data and set the VCO frequency (f) to the specified value.
   Note: The VCO adjustment mode is set up automatically, so the LCD screen falls into the disorder.
3) Press the PAUSE button of the adjustment remote commander.
4) Select page: D, address: A3, set the same data as page: D, address: A2, and press the PAUSE button.
5) Select page: 0, address: 01, and set data: 00.

2. RGB AMP Adjustment (PD-123 board)

Set the D range of the RGB decoder used to drive the LCD to the specified value. If deviated, the LCD screen will become blackish or saturated (whitish).

Mode	Camera
Subject	Arbitrary
Measurement Point	Pin ⑦ of CN009 (PANEL VG) of VC-240/241 board Ext. trigger: Pin ⑪ of CN009 (PANEL COM)
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	A5
Specified Value	A = 3.70 ± 0.05V (LCD TYPE SH NTSC) A = 3.45 ± 0.05V (LCD TYPE SH PAL) A = 3.50 ± 0.05V (LCD TYPE CA)

Note: LCD TYPE SH NTSC: DCR-TRV11
LCD TYPE SH PAL: DCR-TRV11E
LCD TYPE CA: DCR-TRV20

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: A5, change the data and set the voltage (A) between the reversed waveform pedestal and non-reversed waveform pedestal to the specified value.
   (The data of address: A5 should be “00” to “3F”.)
   Note: The RGB AMP adjustment mode is set up automatically, so the 3 steps signal is displayed on the LCD screen.
3) Press the PAUSE button of the adjustment remote commander.
4) Select page: 0, address: 01, and set data: 00.

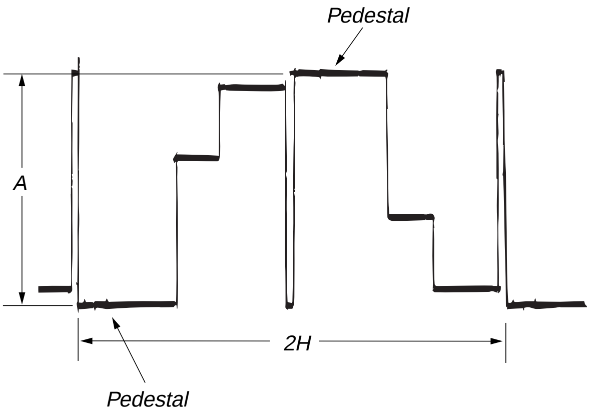


Fig. 5-1-18.

3. Contrast Adjustment (PD-123 board)

Set the level of the VIDEO signal for driving the LCD to the specified value. If deviated, the screen image will be blackish or saturated (whitish).

Mode	Camera
Subject	Arbitrary
Measurement Point	Pin ⑦ of CN009 (PANEL VG) of VC-240/241 board Ext. trigger: Pin ⑪ of CN009 (PANEL COM)
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	AA
Specified Value	A = 3.30 ± 0.05V (LCD TYPE SH NTSC) A = 3.25 ± 0.05V (LCD TYPE SH PAL) A = 3.45 ± 0.05V (LCD TYPE CA)

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: AA, change the data and set the voltage (A) between the pedestal (0 IRE) and 100 IRE to the specified value.
   (The data of address: AA should be “00” to “7F”.)
   Note: The contrast adjustment mode is set up automatically, so the 3 steps signal is displayed on the LCD screen.
3) Press the PAUSE button of the adjustment remote commander.
4) Select page: 0, address: 01, and set data: 00.

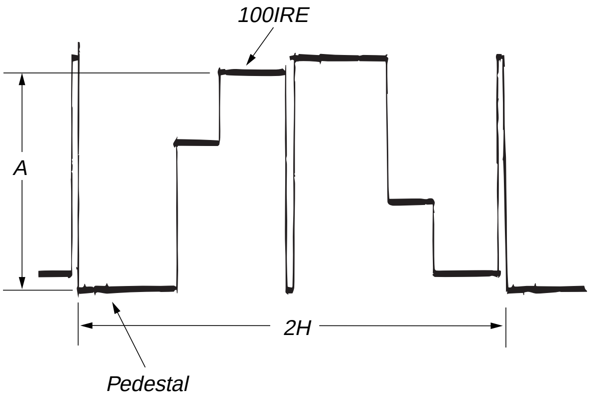


Fig. 5-1-19.

4. V-COM Level Adjustment (PD-123 board)

Set the common electrode drive signal level of LCD to the specified value.

Mode	Camera
Subject	Arbitrary
Measurement Point	Pin ⑪ of CN009 (PANEL COM) of VC-240/241 board
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	A7
Specified Value	A = 6.00 ± 0.05V (LCD TYPE SH) A = 5.70 ± 0.05V (LCD TYPE CA)

Note: Perform “RGB AMP Adjustment” and “Contrast Adjustment” before this adjustment.

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: A7, change the data and set the PANEL COM signal level (A) to the specified value.
   Note: The V-COM level adjustment mode is set up automatically.
3) Press the PAUSE button of the adjustment remote commander.
4) Select page: 0, address: 01, and set data: 00.

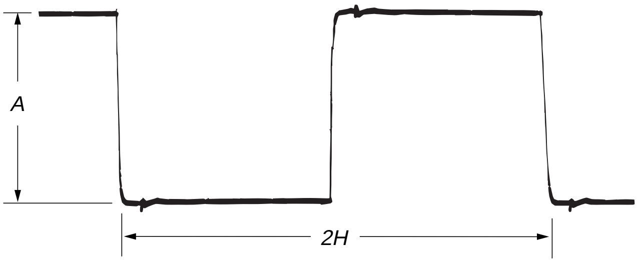


Fig. 5-1-20.

5. V-COM Adjustment (PD-123 board)

Set the DC bias of the common electrode drive signal of LCD to the specified value.

If deviated, the LCD display will move, producing flicker and conspicuous vertical lines.

Mode	Camera
Subject	Arbitrary
Measurement Point	Check on LCD display
Measuring Instrument	
Adjustment Page	D
Adjustment Address	A4
Specified Value	The brightness difference between the section A and section B is minimum.

Note: Perform “RGB AMP Adjustment”, “Contrast Adjustment” and “V-COM Level Adjustment” before this adjustment.

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: A4, change the data so that the brightness of the section A and that of the section B is equal.
   Note: The V-COM adjustment mode is set up automatically, so the V COM adjustment signal is displayed on the LCD screen.
3) Subtract 8 from the data of page: D, address: A4, and press the PAUSE button of the adjustment remote commander.
4) Select page: 0, address: 01, and set data: 00.

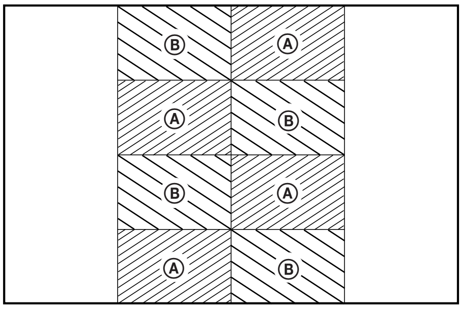


Fig. 5-1-21.

6. White Balance Adjustment (PD-123 board)

Correct the white balance.

If deviated, the reproduction of the LCD screen may degenerate.

Mode	Camera
Subject	Arbitrary
Measurement Point	Check on LCD screen
Measuring Instrument	
Adjustment Page	D
Adjustment Address	A8, A9
Specified Value	The LCD screen should not be colored.

Note: Check the white balance only when replacing the following parts. If necessary, adjust them.
1. LCD panel
2. Light induction plate
3. IC2104

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: A8 and A9, set the data to the initial value.

   Note: To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.

Address	A8	A9
Data	7F	87

3) Check that the LCD screen is not colored. If colored, change the data of page: D, address: A8 and A9 so that the LCD screen is not colored.

   Note: To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.
   When address: A8 or A9 is selected, the white balance adjustment mode is set up automatically.
4) Select page: 0, address: 01, and set data: 00.

1-5-2. LCD SYSTEM ADJUSTMENT (DCR-TRV6/TRV6E/TRV20E)

1. VCO Adjustment (PD-124 board)

Set the VCO free-run frequency. If deviated, the LCD screen will be blurred.

Mode	VTR stop
Signal	No signal
Measurement Point	Pin ⑨ of CN009 (H START) of VC-240/241 board
Measuring Instrument	Frequency counter
Adjustment Page	D
Adjustment Address	A2, A3
Specified Value	f = 15734 ± 30Hz (NTSC) f = 15625 ± 30Hz (PAL)

Note: NTSC: DCR-TRV6
PAL: DCR-TRV6E/TRV20E

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: A2, change the data and set the VCO frequency (f) to the specified value.

   Note: The VCO adjustment mode is set up automatically, so the LCD screen falls into the disorder.
3) Press the PAUSE button of the adjustment remote commander.
4) Select page: D, address: A2, read the data, and this data is named D_{A2}.
5) Convert D_{A2} to decimal notation, and obtain D_{A2}'. (Refer to Table 5-4-1. Hexadecimal-decimal Conversion Table.)
6) Calculate D_{A3}' using following equations (Decimal calculation), convert it to a hexadecimal number, and input to address: A3.

   DCR-TRV6:
   $D_{A3}' = D_{A2}' + 38$
   DCR-TRV6E:
   $D_{A3}' = D_{A2}' - 38$
   DCR-TRV20E:
   $D_{A3}' = D_{A2}' - 11$
7) Press the PAUSE button.
8) Select page: 0, address: 01, and set data: 00.

2. Bright Adjustment (PD-124 board)

Set the D range of the RGB decoder used to drive the LCD to the specified value. If deviated, the LCD screen will become blackish or saturated (whitish).

Mode	VTR stop
Signal	No signal
Measurement Point	Pin ⑦ of CN009 (PANEL VG) of VC-240/241 board
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	A5
Specified Value	A = 7.6 ± 0.05V

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
3) Select page: 3, address: 22, set data: 08, and press the PAUSE button.
4) Select page: D, address: A5, change the data and set the voltage (A) between the reversed waveform pedestal and non-reversed waveform pedestal to the specified value.
5) Press the PAUSE button.
6) Select page: 3, address: 0C, set data: 00, and press the PAUSE button.
7) Select page: 3, address: 22, set data: 00, and press the PAUSE button.
8) Select page: 0, address: 01, and set data: 00.

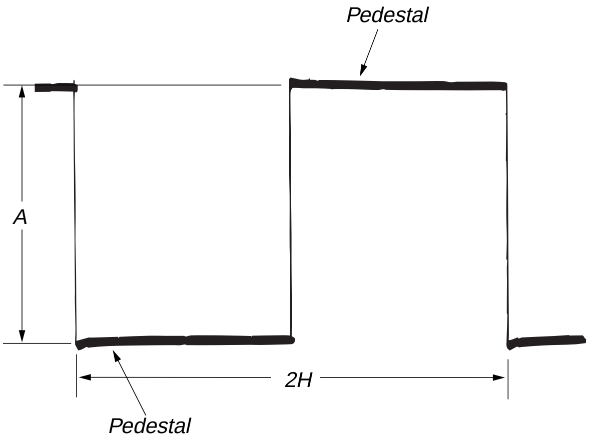


Fig. 5-1-22.

3. Black Limit Adjustment (PD-124 board)

Set the dynamic range of the LCD driver to an appropriate level. If deviated, the LCD screen will become blackish or saturated (whitish).

Mode	VTR stop
Signal	No signal
Measurement Point	Pin ⑩ of CN009 (PSIG) of VC-240/241 board
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	A6
Specified Value	A = 8.00 ± 0.05V

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 2, address: 0E, and set data: 61.
3) Select page: 2, address: 0F, and set data: 5B (*1) or 53 (*2).
   *1: DCR-TRV6
   *2: DCR-TRV6E/TRV20E
4) Select page: D, address: A6, change the data and set the PSIG signal amplitude (A) to the specified value.
   (The data of address: A6 should be “00” to “0F”.)
5) Press the PAUSE button of the adjustment remote commander.
6) Select page: 2, address: 0E, and set data: 00.
7) Select page: 2, address: 0F, and set data: 00.
8) Select page: 0, address: 01, and set data: 00.

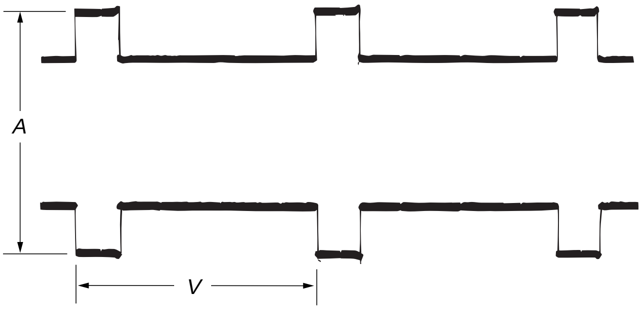


Fig. 5-1-23.

4. Contrast Adjustment (PD-124 board)

Set the level of the VIDEO signal for driving the LCD to the specified value. If deviated, the screen image will be blackish or saturated (whitish).

Mode	VTR stop
Signal	No signal
Measurement Point	Pin ⑦ of CN009 (PANEL VG) of VC-240/241 board Ext. trigger: Pin ⑪ of CN009 (PANEL COM)
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	AA
Specified Value	A = 2.80 ± 0.05V (TRV6E/TRV20E) A = 2.60 ± 0.05V (TRV6)

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: AA, change the data and set the voltage (A) between the pedestal (0 IRE) and 100 IRE to the specified value.
   (The data of address: AA should be “00” to “7F”.)
   Note: The contrast adjustment mode is set up automatically, so the 3 steps signal is displayed on the LCD screen.
3) Press the PAUSE button of the adjustment remote commander.
4) Select page: 0, address: 01, and set data: 00.

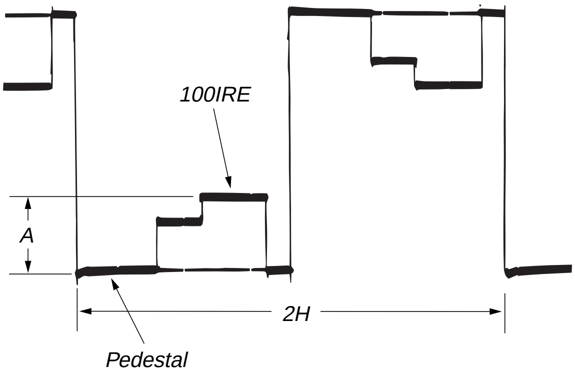


Fig. 5-1-24.

5. Center Level Adjustment (PD-124 board)

Set the video signal center level of LCD panel to an appropriate level.

Mode	VTR stop
Signal	No signal
Measurement Point	Pin ⑦ of CN009 (PANEL VG) of VC-240/241 board
Measuring Instrument	Digital voltmeter
Adjustment Page	D
Adjustment Address	AB
Specified Value	A = 5.25 ± 0.03V (3.5" LCD) A = 6.75 ± 0.03V (2.5" LCD)

Note: 3.5" LCD: DCR-TRV20E
2.5" LCD: DCR-TRV6/TRV6E

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 3, address: 0C, set data: 20, and press the PAUSE button of the adjustment remote commander.
3) Select page: 3, address: 22, set data: 08, and press the PAUSE button.
4) Select page: D, address: AB, change the data and set the DC voltage (A) of VG signal to the specified value.
5) Press the PAUSE button.
6) Select page: 3, address: 22, set data: 00, and press the PAUSE button.
7) Select page: 3, address: 0C, set data: 00, and press the PAUSE button.
8) Select page: 0, address: 01, and set data: 00.

6. V-COM Adjustment (PD-124 board)

Set the DC bias of the common electrode drive signal of LCD to the specified value.
If deviated, the LCD display will move, producing flicker and conspicuous vertical lines.

Mode	VTR stop
Signal	No signal
Measurement Point	Check on LCD display
Measuring Instrument	
Adjustment Page	D
Adjustment Address	A4
Specified Value	The brightness difference between the section A and section B is minimum.

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: A4, change the data so that the brightness of the section A and that of the section B is equal. (The data of address: A4 should be “00” to “3F”.)
   Note: The V-COM adjustment mode is set up automatically, so the V COM adjustment signal is displayed on the LCD screen.
3) Press the PAUSE button of the adjustment remote commander.
4) Select page: D, address: A4, substract 1 (TRV20E) or 3 (TRV6/TRV6E) from the data, and press the PAUSE button.
5) Select page: 0, address: 01, and set data: 00.

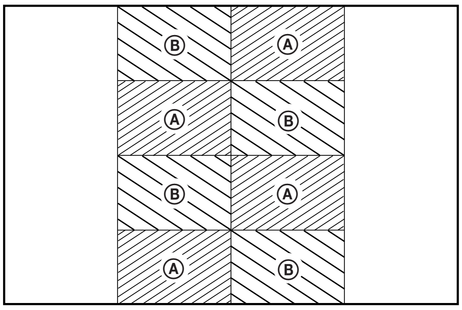


Fig. 5-1-25.

7. White Balance Adjustment (PD-124 board)

Correct the white balance.
If deviated, the reproduction of the LCD screen may degenerate.

Mode	VTR stop
Signal	No signal
Measurement Point	Check on LCD screen
Measuring Instrument	
Adjustment Page	D
Adjustment Address	A8, A9
Specified Value	The LCD screen should not be colored.

Note: Check the white balance only when replacing the following parts. If necessary, adjust them.
1. LCD panel
2. Light induction plate
3. IC3101

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: A8 and A9, set the data to the initial value.
   Note: To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.

Address	A8	A9
Data	8A	72

3) Check that the LCD screen is not colored. If colored, change the data of page: D, address: A8 and A9 so that the LCD screen is not colored.
   Note: To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.
   When address: A8 or A9 is selected, the white balance adjustment mode is set up automatically.
4) Select page: 0, address: 01, and set data: 00.

5-2. MECHANISM SECTION ADJUSTMENT

On the mechanism section adjustment

For details of mechanism section adjustments, checks, and replacement of mechanism parts, refer to the separate volume "DV MECHANICAL ADJUSTMENT MANUAL Ⅵ J Mechanism ".

2-1. HOW TO ENTER RECORD MODE WITHOUT CASSETTE

1) Connect the adjustment remote commander to the LANC jack.
2) Turn the HOLD switch of the adjustment remote commander to the ON position.
3) Close the cassette compartment without the cassette.
4) Select page: 3, address: 01, set data: 0C, and press the PAUSE button of the adjustment remote commander.
   (The mechanism enters the record mode automatically.)
   Note: The function buttons become inoperable.
5) To quit the record mode, select page: 3, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander. (Whenever you want to quit the record mode, be sure to quit following this procedure.)

2-2. HOW TO ENTER PLAYBACK MODE WITHOUT CASSETTE

1) Connect the adjustment remote commander to the LANC jack.
2) Turn the HOLD switch of the adjustment remote commander to the ON position.
3) Close the cassette compartment without the cassette.
4) Select page: 3, address: 01, set data: 0B, and press the PAUSE button of the adjustment remote commander.
   (The mechanism enters the playback mode automatically.)
   Note: The function buttons become inoperable.
5) To quit the playback mode, select page: 3, address: 01, set data: 00, and press the PAUSE button of the adjustment remote commander. (Whenever you want to quit the playback mode, be sure to quit following this procedure.)

2-3. TAPE PATH ADJUSTMENT

Note: Only for the DCR-TRV20/TRV20E model, the lens block (CD-252 board) must be connected when performing the adjustments.

1. Preparation for Adjustment

1) Clean the tape running side (tape guide, drum, capstan shaft, pinch roller, etc.).
2) Connect the adjustment remote commander to the LANC jack.
3) Turn the HOLD switch of the adjustment remote commander to the ON position.
4) Connect an oscilloscope to VC-240/241 board CN009 via the CPC-8 jig (J-6082-388-A).
   Channel 1: VC-240/241 board, CN009 Pin ⑳ (Note)
   External trigger: VC-240/241 board, CN009 Pin ⑰
   Note: Connect a 75 Ω resistor between pins ⑳ of CN009 and ⑲ (GND).
   75 Ω resistor (Parts code: 1-247-804-11)
5) Playback the alignment tape for tracking. (XH2-1)
6) Select page: 3, address: 33, and set data: 08.
7) Select page: 3, address: 26, and set data: 31.
8) Check that the oscilloscope RF waveform is normal at the entrance and exit.
   If not normal, adjust according to the separate volume "DV MECHANICAL ADJUSTMENT MANUAL Ⅵ J Mechanism " .

CN009 of VC-240/241 board

Pin No.	Signal Name	Pin No.	Signal Name
1	LACN SIG	2	EVF BL+
3	EVF BL–	4	EVF VG
5	EVF VCO	6	GND
7	PANEL VG	8	PD VCO
9	H START	10	XHD/PSIG
11	PANEL COM	12	TMS
13	TCK	14	JIG TDI
15	JIG TDO	16	GND
17	SWP	18	RF IN/LANC JACK IN
19	GND	20	RF MON

2. Procedure after operations

1) Connect the adjustment remote commander to the LANC jack and set the HOLD switch to the ON position.
2) Select page: 3, address: 26, and set data: 00.
3) Select page: 3, address: 33, and set data: 00.

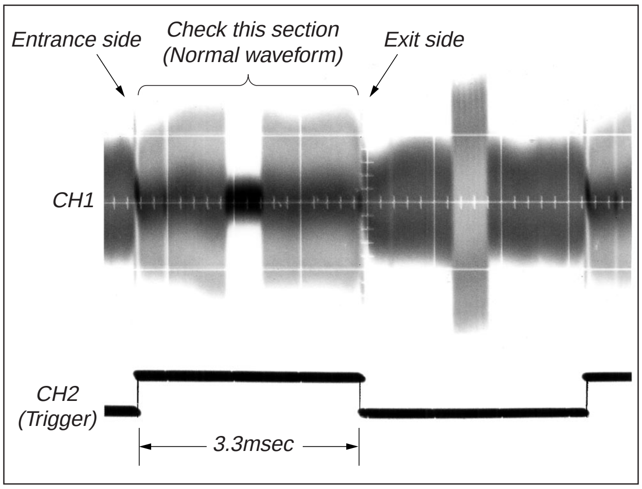


Fig. 5-2-1.

5-3. VIDEO SECTION ADJUSTMENTS

NTSC model : DCR-TRV6/TRV11/TRV20
PAL model : DCR-TRV6E/TRV11E/TRV20E

3-1. PREPARATIONS BEFORE ADJUSTMENTS

Use the following measuring instruments for video section adjustments.

3-1-1. Equipment Required

1) TV monitor
2) Oscilloscope (dual-phenomenon, band above 30 MHz with delay mode) (Unless specified otherwise, use a 10 : 1 probe.)
3) Frequency counter
4) Pattern generator with video output terminal.
5) Digital voltmeter
6) Audio generator
7) Audio level meter
8) Audio distortion meter
9) Audio attenuator
10) Regulated power supply
11) Alignment tapes
    - Tracking standard (XH2-1)
      Parts code: 8-967-997-01
    - SW/OL standard (XH2-3)
      Parts code: 8-967-997-11
    - Audio operation check for NTSC (XH5-3)
      Parts code: 8-967-997-51
    - System operation check for NTSC (XH5-5)
      Parts code: 8-967-997-61
    - BIST check for NTSC (XH5-6)
      Parts code: 8-967-997-71
    - Audio operation check for PAL (XH5-3P)
      Parts code: 8-967-997-55
    - System operation check for PAL (XH5-5P)
      Parts code: 8-967-997-66
    - BIST check for PAL (XH5-6P)
      Parts code: 8-967-997-76
12) Adjustment remote commander (J-6082-053-B)
13) CPC-8 jig (J-6082-388-A)
14) IR receiver jig (J-6082-383-A)
15) Extension cable (80P, 0.4 mm)
    For extension between the DD-137 board (CN1603) and the VC-240/241 board (CN002) (J-6082-395-A)

3-1-2. Precautions on Adjusting

1) The adjustments of this unit are performed in the VTR mode or camera mode.
   To set to the VTR mode, set the power switch to “VCR” (or “PLAYER”) or set the “Forced VTR Power ON mode” using the adjustment remote commander (Note 1).
   To set to the Camera mode, set the power switch to “CAMERA” or set the “Forced Camera Power ON mode” using the adjustment remote commander (Note 2).
   After completing adjustments, be sure to exit the “Forced VTR Power ON Mode” or “Forced Camera Power ON Mode”. (Note 3)
2) The front panel block (MA-385 board, microphone unit, remote commander receiver, LANC/DIGITAL I/O jack, MIC jack) must be assembled because the audio/video jack is used for connecting the monitor TV. To remove, disconnect the following connector.
   MA-385 board CN2071 (28P, 0.5mm)
3) Cabinet (R) (CK-92/94board, LCD block) need not be connected. But removing the cabinet (R) (removing the VC-240/241 board CN003) means removing the lithium 3V power supply (CK-92/94 board, BT3201) , data such as date, time, user-set menus will be lost. After completing adjustments, reset these data. If the cabinet (R) has been removed, the self-diagnosis data, data on history of use (total drum rotation time etc.) will be lost. Before removing, note down the self-diagnosis data and the data on the history use (data of page: 2, address: A2 to AA). (Refer to “SELF-DIAGNOSIS FUNCTION” for the self-diagnosis data, and to “5-4.Service Mode” for the data on the history use.)
   To remove the cabinet (R), disconnect the following connectors.
   VC-240/241 board CN003 (51P, 0.3mm)
4) The viewfinder (LB-64 board) is need not be connected. To remove it, disconnect the following connector.
   DD-137 board CN1604 (27P, 0.3mm)
5) For extension between the DD-137 board CN1603 and VC-240/241 board CN002, use the following extension cable.
   J-6082-395-A (80P, 0.4mm)
6) Only for the DCR-TRV20/TRV20E model, the lens block (CN701 of VC-240 board) must be connected when performing adjustments, because the timing generator (IC102) is provided on the CD-252 board of the lens block.

Note 1: Setting the “Forced VTR Power ON” mode (VTR mode)
1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 10, set data: 02, and press the PAUSE button of the adjustment remote commander.
   The above procedure will enable the VTR power to be turned on with the control switch block (FK-30150 block) removed.
   After completing adjustments, be sure to exit the “Forced Power ON mode”.

Note 2: Setting the “Forced Camera Power ON” mode (Camera mode)
1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 10, set data: 01, and press the PAUSE button of the adjustment remote commander.
   The above procedure will enable the camera power to be turned on with the control switch block (FK-30150 block) removed.
   After completing adjustments, be sure to exit the “Forced Power ON mode”.

Note 3: Setting the “Forced Memory Power ON” mode (Memory mode)
1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 10, set data: 05, and press the PAUSE button of the adjustment remote commander.
   The above procedure will enable the memory power to be turned on with the control switch block (FK-30150 block) removed.
   After completing adjustments, be sure to exit the “Forced Power ON mode”.

Note 4: Exiting the “Forced Power ON” mode
1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 10, set data: 00, and press the PAUSE button of the adjustment remote commander.
3) Select page: 0, address: 01, and set data: 00.

Note 5: CK-92 board: DCR-TRV11/TRV11E/TRV20
CK-94 board: DCR-TRV6/TRV6E/TRV20E
VC-240 board: DCR-TRV20/TRV20E
VC-241 board: DCR-TRV6/TRV6E/TRV11/TRV11E

3-1-3. Adjusting Connectors

Some of the adjusting points of the video section are concentrated at VC-240/241 board CN009. Connect the measuring instruments via the CPC-8 jig (J-6082-388-A). The following table lists the pin numbers and signal names of CN009.

Pin No.	Signal Name	Pin No.	Signal Name
1	LACN SIG	2	EVF BL+
3	EVF BL–	4	EVF VG
5	EVF VCO	6	GND
7	PANEL VG	8	PD VCO
9	H START	10	XHD/PSIG
11	PANEL COM	12	TMS
13	TCK	14	JIG TDI
15	JIG TDO	16	GND
17	SWP	18	RF IN/LANC JACK IN
19	GND	20	RF MON

Table 5-3-1.

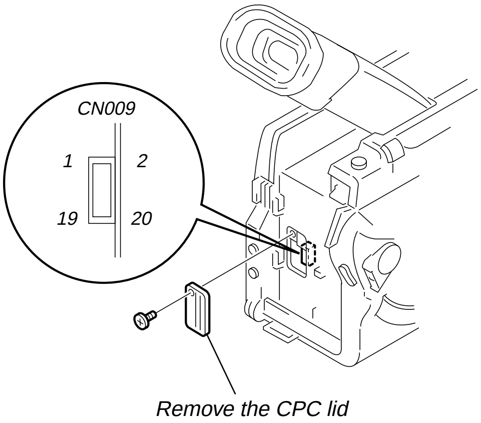

CN009
1
2
19
20
Remove the CPC lid

Fig. 5-3-1

3-1-4. Connecting the Equipment

Connect the measuring instruments as shown in Fig. 5-3-2, and perform the adjustments.

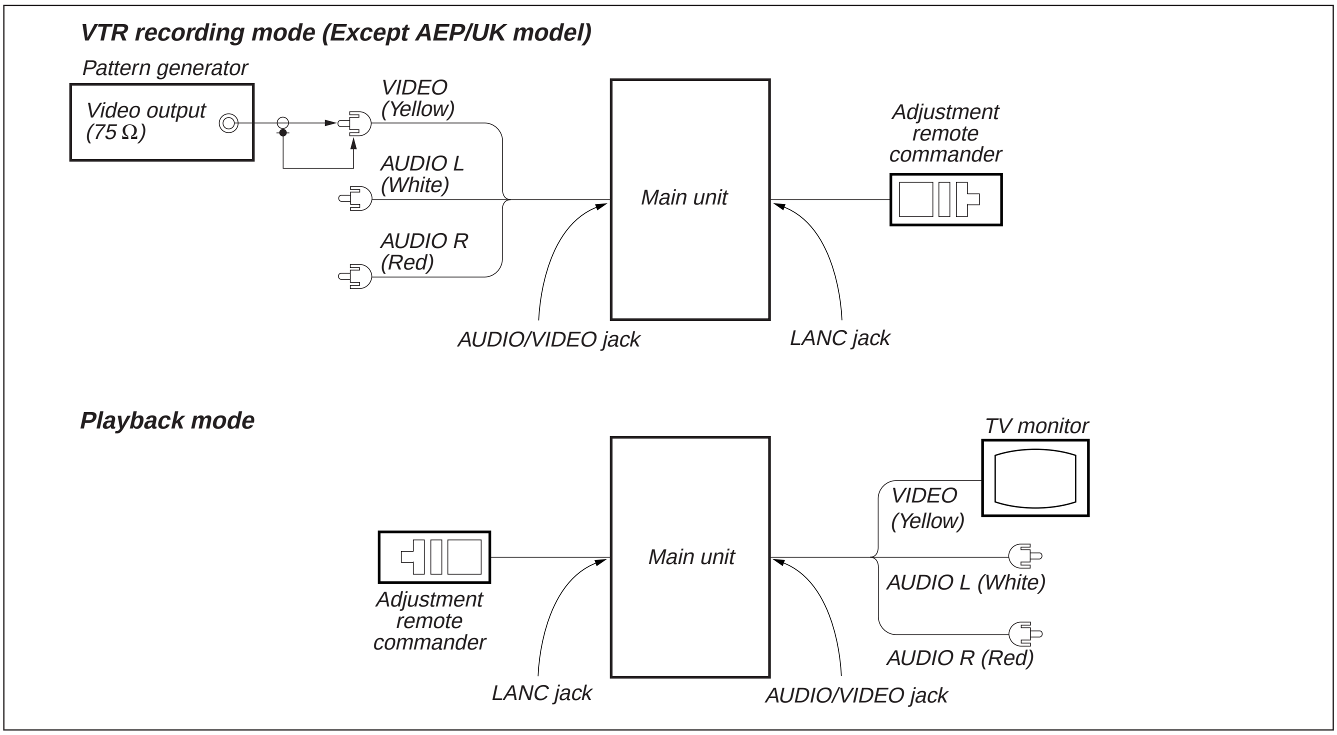

VTR recording mode (Except AEP/UK model)
Pattern generator
Video output
(75 Ω)
VIDEO
(Yellow)
AUDIO L
(White)
AUDIO R
(Red)
Main unit
Adjustment
remote
commander
AUDIO/VIDEO jack
LANC jack
Playback mode
TV monitor
VIDEO
(Yellow)
AUDIO L (White)
AUDIO R (Red)
Main unit
Adjustment
remote
commander
LANC jack
AUDIO/VIDEO jack

Fig. 5-3-2.

3-1-5. Checking the Input Signals (Except AEP/UK model)

Because the video signal obtained from the pattern generator is used as the adjustment signal for adjusting the VTR section, the video output signal must satisfy the given specifications.

Connect the oscilloscope to the video terminal of the AUDIO/VIDEO jack, and check that the sync signal amplitude of the video signal is approximately <0.286V> [0.30V], the amplitude of the video section is approximately <0.714> [0.70V], the amplitude of the burst signal is approximately <0.286> [0.30V] and flat, and that the level ratio of the burst signal to the “red” signal is 0.30 : 0.60.

The video signal used for adjusting the video section is shown in Fig. 5-3-3.

< > : NTSC model
[ ] : PAL model

3-1-6. Alignment Tapes

Use the alignment tapes shown in the following table.
Use tapes specified in the signal column of each adjustment.

Name	Use
Tracking standard (XH2-1)	Tape path adjustment
SW/OL standard (XH2-3)	Switching position adjustment
Audio operation check (XH5-3 (NTSC), XH5-3P (PAL))	Audio system adjustment
System operation check (XH5-5 (NTSC), XH5-5P (PAL))	Operation check
BIST check (XH5-6 (NTSC), XH5-6P (PAL))	BIST check

Fig. 5-3-3 shows the 75% color bar signals recorded on the alignment tape for Audio Operation Check.

Note: Measure with video terminal (Terminated at 75 Ω)

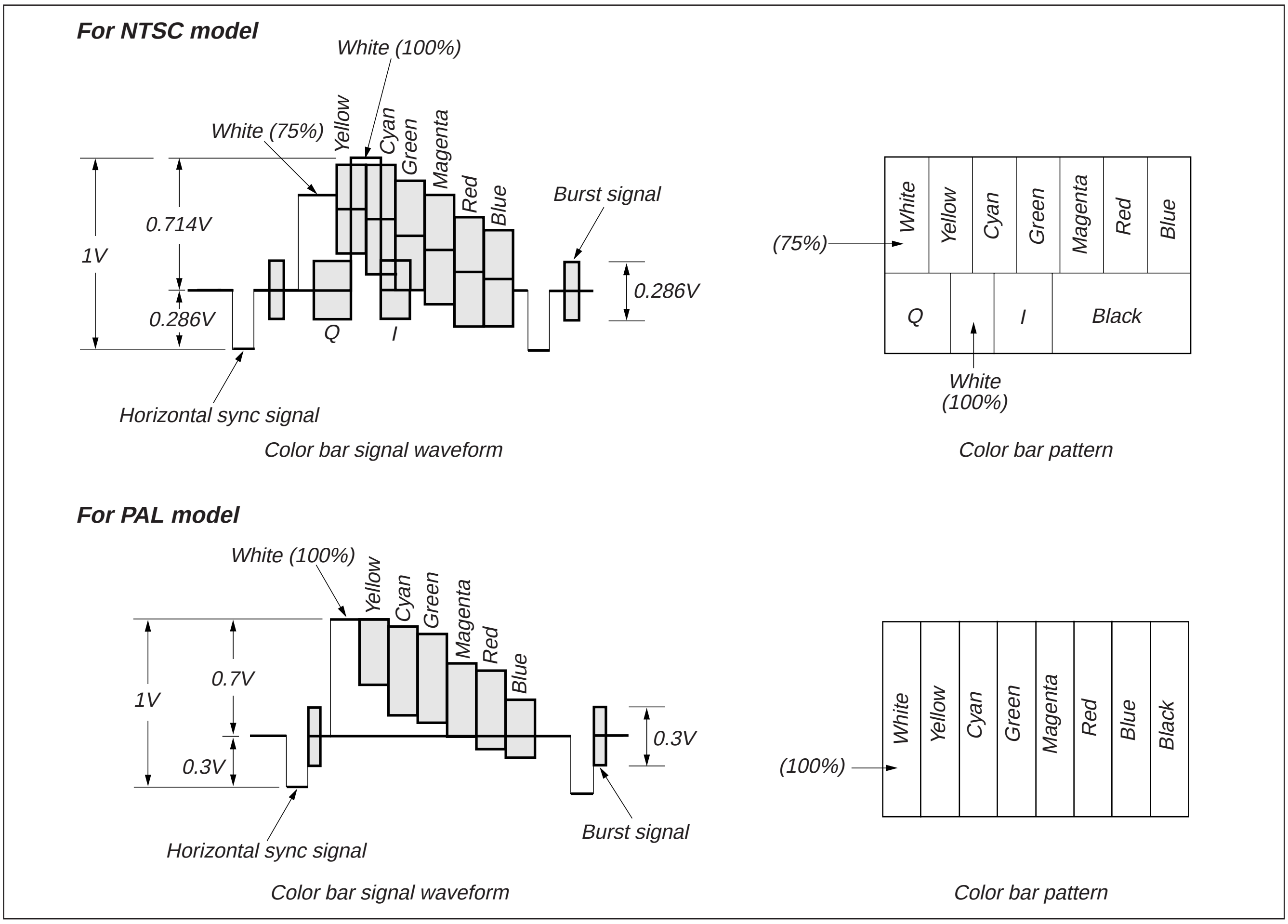

For NTSC model
White (100%)
White (75%)
Yellow
Cyan
Green
Magenta
Red
Blue
Burst signal
0.714V
1V
0.286V
0.286V
Q
I
Horizontal sync signal
Color bar signal waveform
(75%)
White
Yellow
Cyan
Green
Magenta
Red
Blue
Q
I
Black
White
(100%)
Color bar pattern
For PAL model
White (100%)
Yellow
Cyan
Green
Magenta
Red
Blue
1V
0.7V
0.3V
0.3V
Horizontal sync signal
Burst signal
Color bar signal waveform
(100%)
White
Yellow
Cyan
Green
Magenta
Red
Blue
Black
Color bar pattern

Fig. 5-3-3. Color bar signal of alignment tapes

3-1-7. Input/Output Level and Impedance

Video input/output
Special stereo mini jack
Video signal: 1 Vp-p, 75 Ω unbalanced, sync negative

S video input/output
4-pin mini DIN
Luminance signal: 1 Vp-p, 75 Ω unbalanced, sync negative
Chrominance signal: 0.286 Vp-p, 75 Ω unbalanced (NTSC)
: 0.300 Vp-p, 75 Ω unbalanced (PAL)

Audio input/output
Special stereo mini jack
Input level: 327mV
Input impedance: More than 47kΩ
Output level: 327 mV (at load impedance 47 kΩ)
Output impedance: Below 2.2 kΩ

3-2. SYSTEM CONTROL SYSTEM ADJUSTMENT

1. Initialization of B, C, D, E, F, 7, 8 Page Data

If the B, C, D, E, F, 7, 8 page data is erased due to some reason, perform “1-2. INITIALIZATION OF B, C, D, E, F, 7, 8 PAGE DATA”, of “5-1. CAMERA SECTION ADJUSTMENT”

2. Serial No. Input

2-1. Company ID Input

Write the company ID in the EEPROM (nonvolatile memory).

Page	C
Address	E8, E9, EA, EB, EC

Input method:

1) Select page: 0, address: 01, and set data: 01.
2) Input the following data to page: C, addresses: E8 to EC.
   Note: Press the PAUSE button of the adjustment remote commander each time to set the data.

Address	Data
E8	08
E9	00
EA	46
EB	01
EC	02

3) Select page: 0, address: 01, and set data: 00.

2-2. Serial No. Input

Write the serial No. and model code in the EEPROM (nonvolatile memory). Convert the serial No. on the name plate from decimal to hexadecimal, and write in the EEPROM.

Page	C
Address	ED, EE, EF

Input method:

1) Select page: 0, address: 01, and set data: 01.
2) Read the serial No. on the name plate, and take it as D_1.
   Example: If the serial No. is 77881.
   D_1=77881
3) Obtain D_2 and H_1 corresponding to D_1 from Table 5-3-2.
   Example: If D_1 is “77881”.
   D_2=D_1–65536=12345
   H_1=FE

D_1 (Decimal)	D_2 (Decimal)	H_1 (Hexadecimal) (Service model code)
000001 to 065535	D_1	FE
065536 to 131071	D_1–65536	FE
131072 to 196607	D_1–131072	FE

Table 5-3-2.

4) Input H_1 to page: C, address: ED. (Model code input)
   Example: If H_1 is “FE”.
   Select page: C, address: ED, set data: FE, and press the PAUSE button.
5) Obtain the maximum decimal not exceeding D_2 from Table 5-3-3, and take this as D_3.
   Example: If D_2 is “12345”.
   D_3=12288
6) Obtain the hexadecimal corresponding to D_3 from Table 5-3-3, and take this as H_3.
   Example: If D_3 is “12288”.
   H_3=3000
7) Obtain the difference D_4 between D_2 and D_3. (Decimal calculation, $0 \leqq D_4 \leqq 255$)
   D_4= D_2–D_3
   Example: If D_2 is “12345” and D_3 is “12288”.
   D_4=12345–12288=57
8) Convert D_4 to hexadecimal, and take this as H_4.
   (Refer to “Hexadecimal-decimal conversion table” in “5-4. Service Mode”.)
   Example: If D_4 is “57”.
   H_4=39
9) Input the upper 2 digits of H_3 to page: C, address: EE.
   Example: If H_3 is “3000”.
   Select page: C, address: EE, set data: 30, and press the PAUSE button.
10) Input H_4 to page: C, address: EF.
   Example: If H_4 is “39”.
   Select page: C, address: EF, set data: 39, and press the PAUSE button.
11) Select page: 0, address: 01, and set data: 00.

Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)	Decimal (D_3)	Hexa-decimal (H_3)
0	0000	8192	2000	16384	4000	24576	6000	32768	8000	40960	A000	49152	C000	57344	E000
256	0100	8448	2100	16640	4100	24832	6100	33024	8100	41216	A100	49408	C100	57600	E100
512	0200	8704	2200	16896	4200	25088	6200	33280	8200	41472	A200	49664	C200	57856	E200
768	0300	8960	2300	17152	4300	25344	6300	33536	8300	41728	A300	49920	C300	58112	E300
1024	0400	9216	2400	17408	4400	25600	6400	33792	8400	41984	A400	50176	C400	58368	E400
1280	0500	9472	2500	17664	4500	25856	6500	34048	8500	42240	A500	50432	C500	58624	E500
1536	0600	9728	2600	17920	4600	26112	6600	34304	8600	42496	A600	50688	C600	58880	E600
1792	0700	9984	2700	18176	4700	26368	6700	34560	8700	42752	A700	50944	C700	59136	E700
2048	0800	10240	2800	18432	4800	26624	6800	34816	8800	43008	A800	51200	C800	59392	E800
2304	0900	10496	2900	18688	4900	26880	6900	35072	8900	43264	A900	51456	C900	59648	E900
2560	0A00	10752	2A00	18944	4A00	27136	6A00	35328	8A00	43520	AA00	51712	CA00	59904	EA00
2816	0B00	11008	2B00	19200	4B00	27392	6B00	35584	8B00	43776	AB00	51968	CB00	60160	EB00
3072	0C00	11264	2C00	19456	4C00	27648	6C00	35840	8C00	44032	AC00	52224	CC00	60416	EC00
3328	0D00	11520	2D00	19712	4D00	27904	6D00	36096	8D00	44288	AD00	52480	CD00	60672	ED00
3584	0E00	11776	2E00	19968	4E00	28160	6E00	36352	8E00	44544	AE00	52736	CE00	60928	EE00
3840	0F00	12032	2F00	20224	4F00	28416	6F00	36608	8F00	44800	AF00	52992	CF00	61184	EF00
4096	1000	12288	3000	20480	5000	28672	7000	36864	9000	45056	B000	53248	D000	61440	F000
4352	1100	12544	3100	20736	5100	28928	7100	37120	9100	45312	B100	53504	D100	61696	F100
4608	1200	12800	3200	20992	5200	29184	7200	37376	9200	45568	B200	53760	D200	61952	F200
4864	1300	13056	3300	21248	5300	29440	7300	37632	9300	45824	B300	54016	D300	62208	F300
5120	1400	13312	3400	21504	5400	29696	7400	37888	9400	46080	B400	54272	D400	62464	F400
5376	1500	13568	3500	21760	5500	29952	7500	38144	9500	46336	B500	54528	D500	62720	F500
5632	1600	13824	3600	22016	5600	30208	7600	38400	9600	46592	B600	54784	D600	62976	F600
5888	1700	14080	3700	22272	5700	30464	7700	38656	9700	46848	B700	55040	D700	63232	F700
6144	1800	14336	3800	22528	5800	30720	7800	38912	9800	47104	B800	55296	D800	63488	F800
6400	1900	14592	3900	22784	5900	30976	7900	39168	9900	47360	B900	55552	D900	63744	F900
6656	1A00	14848	3A00	23040	5A00	31232	7A00	39424	9A00	47616	BA00	55808	DA00	64000	FA00
6912	1B00	15104	3B00	23296	5B00	31488	7B00	39680	9B00	47872	BB00	56064	DB00	64256	FB00
7168	1C00	15360	3C00	23552	5C00	31744	7C00	39936	9C00	48128	BC00	56320	DC00	64512	FC00
7424	1D00	15616	3D00	23808	5D00	32000	7D00	40192	9D00	48384	BD00	56576	DD00	64768	FD00
7680	1E00	15872	3E00	24064	5E00	32256	7E00	40448	9E00	48640	BE00	56832	DE00	65024	FE00
7936	1F00	16128	3F00	24320	5F00	32512	7F00	40704	9F00	48896	BF00	57088	DF00	65280	FF00

Table 5-3-3.

3. Battery End Check (VC-240/241 board)

Check the battery end voltage.

Mode	Camera recording and VTR playback
Subject	Arbitrary

Note: It is normal though the following symptoms appear during the battery end check.

1) The message of "FOR InfoLITHIUM BATTERY ONLY" on the LCD or viewfinder screen.
2) The tally lamp is flashing.

Connection:

1) Connect the regulated power supply and the digital voltmeter to the battery terminal as shown in Fig. 5-3-4.

Checking method:

1) Adjust the output voltage of the regulated power supply so that the digital voltmeter display is 6.0 ± 0.1Vdc.
2) Turn off the power supply.
3) Turn on the HOLD switch of the adjustment remote commander.
4) Turn on the power supply.
5) Load a cassette, and set to the camera recording mode.
6) Decrease the output voltage of the regulated power supply so that the digital voltmeter display is 5.5 ± 0.1Vdc.
7) Record the camera signal for a minute.
8) Playback the recorded section and check that the playback picture and sound are normal.

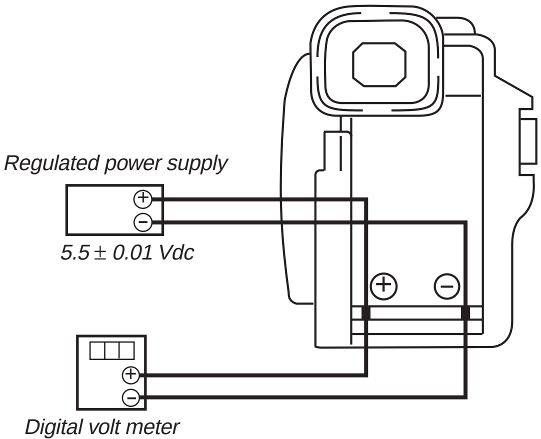


Fig. 5-3-4.

3-3. SERVO AND RF SYSTEM ADJUSTMENT

Before perform the servo and RF system adjustments, check that the specified value of “36MHz/54MHz/66MHz Origin Oscillation Adjustment” of “CAMERA SYSTEM ADJUSTMENT” is satisfied.

Note: Only for the DCR-TRV20/TRV20E model, the lens block (CD-252 board) must be connected when performing the adjustment.

Adjusting Procedure:

1. Cap FG duty adjustment
2. PLL f_0 & LPF f_0 adjustment
3. Switching position adjustment
4. AGC center level and APC & AEQ adjustment
5. PLL f_0 & LPF f_0 final adjustment

1. Cap FG Duty Adjustment (VC-240/241 board)

Set the Cap FG signal duty cycle to 50% to establish an appropriate capstan servo. If deviated, the uneven rotation of capstan and noise can occur.

Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	C
Adjustment Address	16
Specified Value	00

Adjusting method:

1) Close the cassette compartment without inserting a cassette.
2) Select page: 0, address: 01, and set data: 01.
3) Select page: 3, address: 01, set data: 1B, and press the PAUSE button of the adjustment remote commander.
4) Select page: 3, address: 02, and check that the data changes starting from “1B” to “2B” to “00” in this order.
5) Select page: 3, address: 03, and check that the data is “00”.
   Note: If the data of page: 3, address: 03 is “01”, adjustment has errors or the mechanism deck is defective.
6) Select page: 0, address: 01, and set data: 00.

2. PLL f_0 & LPF f_0 Adjustment (VC-240/241 board)

Mode	VTR stop
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	C
Adjustment Address	1F, 20, 22, 29
Specified Value	Bit2, bit3 and bit6 are “0”

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 3, address: 01, set data: 30, and press the PAUSE button of the adjustment remote commander.
3) Select page: 3, address: 02, and check that the data changes to “00”.
4) Select page: 3, address: 03, and check that bit2, bit3 and bit 6 of the data are “0”.
   Note: If bit2, bit3 or bit 6 of the data is “1”, there are errors. (For the error contents, see the following table. For the bit values, refer to “5-4. SERVICE MODE”, “4-3. 3. Bit value discrimination”.)
5) Select page: 0, address: 01, and set data: 00.

Bit value of page: 3, address: 03 data	Error contents
bit 6 = 1	LPF f_0 is defective
bit 3 = 1	PLL f_0, final adjustment is defective
bit 2 = 1	PLL f_0, final adjustment time-out

3. Switching Position Adjustment (VC-240/241 board)

Mode	VTR playback
Signal	SW/OL reference tape (XH2-3)
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	C
Adjustment Address	10, 11, 12, 13
Specified Value	00

Adjusting method:

1) Insert the SW/OL reference tape and enter the VTR STOP mode.
2) Select page: 0, address: 01, and set data: 01.
3) Select page: 3, address: 21, and check that the data is “02”.
   Note: If the data of page: 3, address: 21 is “72”, the tape top being played. After playing the tape for 1 to 2 seconds, stop it, perform step 4 and higher.
4) Select page: 3, address: 01, set data: 0D, and press the PAUSE button of the adjustment remote commander.
5) Select page: 3, address: 02, and check that the data changes to “00”.
6) Select page: 3, address: 03, and check that the data is “00”.
   Note: If bit 0 of page: 3, address: 03 data is “1”, the even channel is defective. If bit 1 is “1”, the odd channel is defective. Contents of the defect is written into page: C, addresses: 10 and 12. See the following table. (For the bit values, refer to “5-4. SERVICE MODE”, “4-3. 3. Bit value discrimination”.)
7) Select page: 0, address: 01, and set data: 00.

When the even channel is defective

Data of page: C, address: 10	Contents of defect
EE	Writing into EEPROM (IC502) is defective
E8	Adjustment data is out of range
E7	No data is returned from IC301 (CAIN)

When the odd channel is defective

Data of page: C, address: 12	Contents of defect
EE	Writing into EEPROM (IC502) is defective
E8	Adjustment data is out of range
E7	No data is returned from IC301 (CAIN)

4. AGC Center Level and APC & AEQ Adjustment

4-1. Preparations before adjustments

Mode	Camera recording
Subject	Arbitrary

Adjusting method:

1) Select page: 2, address: 30, and set data: 40.
2) Record the camera signal for three minutes.

4-2. AGC Center Level Adjustment (VC-240/241 board)

Mode	Playback
Signal	Recorded signal at “Preparations before adjustments”
Measurement Point	Pin ⑳ of CN009 (RF MON) (Note 1) Ext. trigger : Pin ⑰ of CN009 (SWP)
Measuring Instrument	Oscilloscope
Adjustment Page	C
Adjustment Address	1E
Specified Value	The display data of page: 3, address: 03 is “00”

Note 1: Connect a 75Ω resistor between Pin ⑳ and Pin ⑲ (GND) of CN009.
75Ω resistor (Parts code: 1-247-804-11)

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Playback the recorded signal at “Preparations before adjustments”
3) Select page: 3, address: 33, and set data: 08.
4) Confirm that the playback RF signal is stable.
5) Select page: 3, address: 01, set data: 23, and press the PAUSE button of the adjustment remote commander.
6) Select page: 3, address: 02, and check that the data is “00”.
7) Select page: 3, address: 03, and check that the data is “00”.
   Note: If the data of page: 3, address: 03 is other than “00”, adjustment has errors. (Take an appropriate remedial measures according to the errors referring to the following table.)
8) Perform “APC & AEQ Adjustment”.

Data of page: 3, address: 03	Contents of defect
20	Perform re-adjustment. (Note 2)
30	The machine is defective
40	Perform re-adjustment (Note 2)
50	The machine is defective

Note 2: If this data is displayed twice successively, the machine is defective.

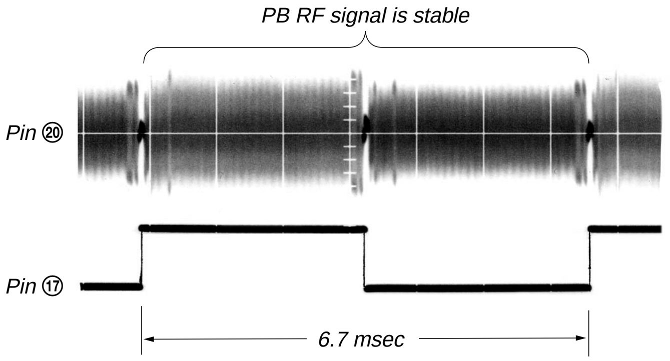


Fig. 5-3-5.

4-3. APC & AEQ Adjustment (VC-240/241 board)

Mode	Playback
Signal	Recorded signal at “Preparations before adjustments”
Measurement Point	Pin ⑳ of CN009 (RF MON) (Note 1) Ext. trigger : Pin ⑰ of CN009 (SWP)
Measuring Instrument	Oscilloscope
Adjustment Page	C
Adjustment Address	18, 19, 1B, 1C, 21, 2C
Specified Value	The display data of page: 3, address: 03 is “00”

Note 1: Connect a 75Ω resistor between Pin ⑳ and Pin ⑲ (GND) of CN009.
75Ω resistor (Parts code: 1-247-804-11)

Note 2: The “AGC Center Level Adjustment” must have already been completed before starting this adjustment.

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Playback the recorded signal at “Preparations before adjustments”
3) Select page: 3, address: 33, and set data: 08.
4) Check that the playback RF signal is stable.
5) Select page: 3, address: 01, set data: 07, and press the PAUSE button of the adjustment remote commander.
6) Select page: 3, address: 02, and check that the data changes from “07” to “00” in about 15 seconds after pressing the PAUSE button.
7) Select page: 3, address: 03, and check that the data is “00”.
   Note: If the data of page: 3, address: 03 is other than “00”, adjustment has errors. (Take an appropriate remedial measures according to the errors referring to the following table.)
8) Perform “Processing after Completing Adjustments”.

Data of page: 3, address: 03	Contents of defect
20	Perform re-adjustment. (Note 3)
30	The machine is defective
50	Perform re-adjustment (Note 3)
60	The machine is defective
80	The machine is defective

Note 3: If this data is displayed twice successively, the machine is defective.

4-4. Processing after Completing Adjustments

1) Select page: 2, address: 30, and set data: 00.
2) Select page: 3, address: 33, and set data: 00.
3) Select page: 0, address: 01, and set data: 00.

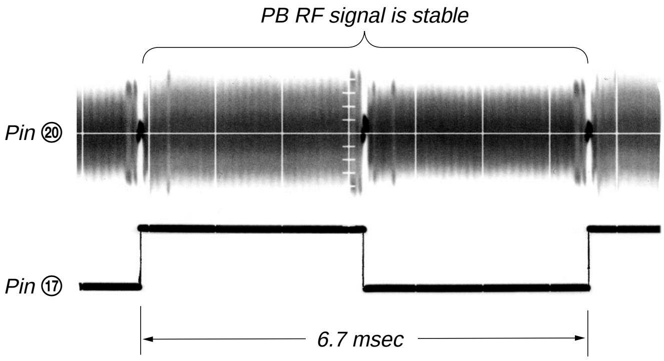


Fig. 5-3-6.

5. PLL f_0 & LPF f_0 Final Adjustment (VC-240/241 board)

Mode	VTR stop
Signal	Arbitrary
Measurement Point	Display data of page: 3, address: 03
Measuring Instrument	Adjustment remote commander
Adjustment Page	C
Adjustment Address	1F, 20, 22, 29
Specified Value	Bit2, bit3 and bit6 are “0”

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 3, address: 01, set data: 30, and press the PAUSE button of the adjustment remote commander.
3) Select page: 3, address: 02, and check that the data changes to “00”.
4) Select page: 3, address: 03, and check that bit2, bit3 and bit 6 of the data are “0”.
   Note: If bit2, bit3 or bit 6 of the data is “1”, there are errors. (For the error contents, see the following table. For the bit values, refer to “5-4. SERVICE MODE”, “4-3. 3. Bit value discrimination”.)
5) Select page: 0, address: 01, and set data: 00.

Bit value of page: 3, address: 03	Error contents
bit 6 = 1	LPF f_0 is defective
bit 3 = 1	PLL f_0 final adjustment is defective
bit 2 = 1	PLL f_0 final adjustment time-out

3-4. VIDEO SYSTEM ADJUSTMENTS

Before perform the video system adjustments, check that the specified value of “36MHz/54MHz/66MHz Origin Oscillation Adjustment” of “CAMERA SYSTEM ADJUSTMENT” is satisfied.

Note: Only for the DCR-TRV20/TRV20E model, the lens block (CD-252 board) must be connected when performing the adjustments.

3-4-1. Base Band Block Adjustments

1. Chroma BPF f_0 Adjustment (VC-240/241 Board)

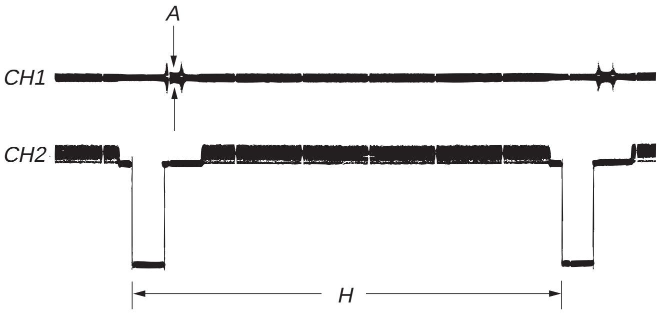
Set the center frequency of IC1301 chroma band-pass filter.

Mode	Camera
Subject	All black (Cover the lens with the lens cap)
Measurement Point	CH1: Chroma signal terminal of S VIDEO jack (75Ω terminated) CH2: Y signal terminal of S VIDEO jack (75Ω terminated)
Measuring Instrument	Oscilloscope
Adjustment Page	C
Adjustment Address	28
Specified Value	A = 100mVp-p or less B = 200mVp-p or more

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Check that the burst signal (B) is output to the chroma signal terminal of S VIDEO jack.
3) Select page: 3, address: 0C, set data: 04, and press the PAUSE button.
4) Select page: C, address: 28, and change the data for minimum amplitude of the burst signal level (A).
   (The data of address: 28 should be “00” to “07”.)
5) Press the PAUSE button.
6) Select page: 3, address: 0C, set data: 00, and press the PAUSE button.
7) Check that the burst signal level (B) satisfies the specified value.
8) Select page: 0, address: 01, and set data: 00.

When the data of page: 3, address: 0C, is 04:



When the data of page: 3, address: 0C, is 00:

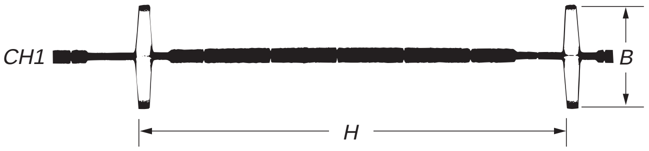


Fig. 5-3-7.

2. S VIDEO OUT Y Level Adjustment (VC-240/241 Board)

Mode	Camera
Subject	Arbitrary
Measurement Point	Y signal terminal of S VIDEO jack (75Ω terminated)
Measuring Instrument	Oscilloscope
Adjustment Page	C
Adjustment Address	25
Specified Value	A = 1000 ± 14mV

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 2, address: 35. After noting down the data of this address, set data: 01 to the address.
3) Select page: 3, address: 0C, set data: 02, and press the PAUSE button of the adjustment remote commander.
4) Select page: C, address: 25, change the data and set the Y signal level (A) to the specified value.
5) Press the PAUSE button.
6) Select page: 3, address: 0C, set data: 00, and press the PAUSE button.
7) Select page: 2, address: 35, and set the data that is noted down at step 2).
8) Select page: 0, address: 01, and set data: 00.

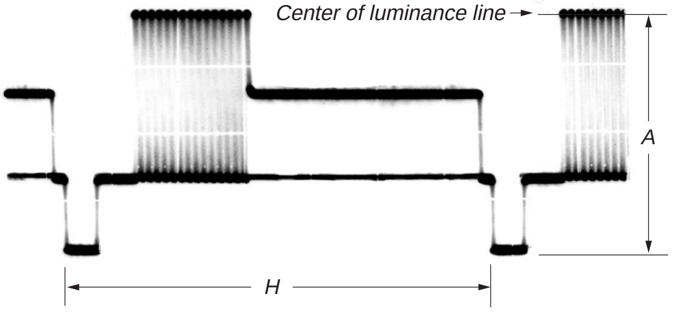


Fig. 5-3-8.

3. S VIDEO OUT Chroma Level Adjustment (VC-240/241 Board)

Mode	Camera
Subject	Arbitrary
Measurement Point	Chroma signal terminal of S VIDEO jack (75Ω terminated) External trigger: Y signal terminal of S VIDEO jack
Measuring Instrument	Oscilloscope
Adjustment Page	C
Adjustment Address	26, 27
Specified Value	Cr level: A = 714 ± 14mV(NTSC) A = 700 ± 14mV(PAL) Cb level: B = 714 ± 14mV(NTSC) B = 700 ± 14mV(PAL) Burst level: C = 286 ± 6mV(NTSC) C = 300 ± 6mV(PAL)

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 2, address: 35. After noting down the data of this address, set data: 01 to the address.
3) Select page: 3, address: 0C, set data: 02, and press the PAUSE button of the adjustment remote commander.
4) Select page: C, address: 26, change the data and set the Cr signal level (A) to the specified value.
5) Press the PAUSE button.
6) Select page: C, address: 27, change the data and set the Cb signal level (B) to the specified value.
7) Press the PAUSE button.
8) Check that the burst signal level (C) is satisfied the specified value.
9) Select page: 3, address: 0C, set data: 00, and press the PAUSE button.
10) Select page: 2, address: 35, and set the data that is noted down at step 2).
11) Select page: 0, address: 01, and set data: 00.

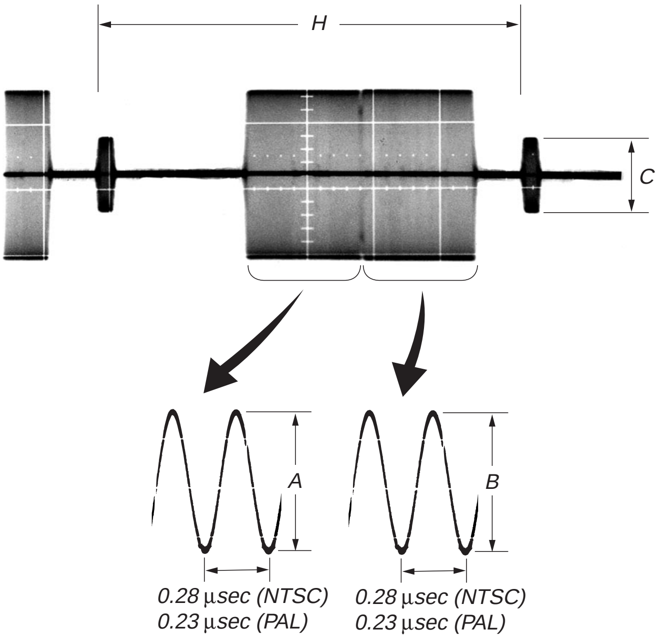


Fig. 5-3-9.

4. AV OUT Y, Chroma Level Check (VC-240/241 Board)

Mode	Camera
Subject	Arbitrary
Measurement Point	Video terminal of AUDIO/VIDEO jack (75Ω terminated)
Measuring Instrument	Oscilloscope
Specified Value	Sync level: A = 286 ± 18mV(NTSC) A = 300 ± 18mV(PAL) Burst level: B = 286 ± 18(mV(NTSC) B = 300 ± 18mV(PAL)

Adjusting method:

1) Select page: 2, address: 35. After noting down the data of this address, set data: 01 to the address.
2) Select page: 3, address: 0C, set data: 02, and press the PAUSE button of the adjustment remote commander.
3) Check that the sync signal level (A) satisfies the specified value.
4) Check that the burst signal level (B) satisfies the specified value.
5) Select page: 3, address: 0C, set data: 00, and press the PAUSE button.
6) Select page: 2, address: 35, and set the data that is noted down at step 1).

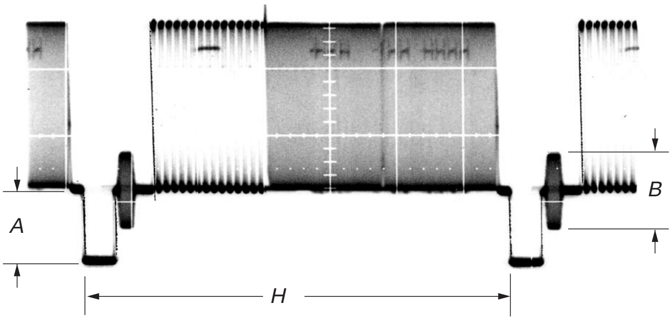


Fig. 5-3-10.

3-4-2. BIST Check

1. Playback System Check

1-1. Preparations for Playback

1) Set the POWER switch to VCR (or PLAYER) position.
2) Connect the adjustment remote commander and set the HOLD switch to ON (SERVICE) position.
3) Select page: 0, address: 01, and set data: 01.
4) Select page: C, address: 42, set data: 00, and press the PAUSE button.
5) Playback the BIST check tape. (XH5-6 (NTSC), XH5-6P (PAL))

Note1: Perform the following checks in the playback mode.
Note2: Use the AC power adaptor (AC-L10 etc.) or the info LITHIUM battery (NP-FM50 etc.).

1-2. IC301 TRX (RF) PB BIST Check

1) Select page: 3, address: 70, set data: 04, and press the PAUSE button.
2) Select page: 3, address: 70, set data: 00, and press the PAUSE button.
3) When the IC301 TRX (RF) playback system is normal, the display data (combination data) of page: 3, address: 73 and 74 agrees with any combination as shown below.

NTSC model

Address	Data					
73	63	C5	75	D3	59	FF
74	84	55	07	D6	01	D0

PAL model

Address	Data		
73	86	AA	90
74	35	33	B6

1-3. IC301 AUD (ABUS) PB BIST Check

1) Select page: 3, address: 11, set data: 04, and press the PAUSE button.
2) Select page: 3, address: 12, set data: 08, and press the PAUSE button.
3) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
4) Select page: 3, address: 13, set data: 03, and press the PAUSE button.
5) When the IC301 AUD (ABUS) playback system is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model

Address	Data
14	41
15	81

PAL model

Address	Data
14	2D
15	7C

1-4. IC301 VFD PB BIST Check

• EX Y BIST Check

1) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
2) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
3) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
4) When the IC301 EX Y playback system is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model

Address	Data
14	FB
15	F4

PAL model

Address	Data
14	54
15	ED

• EVF Y BIST Check

5) Select page: 3, address: 10, set data: 88, and press the PAUSE button.
6) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
7) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
8) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
9) When the IC301 EVF Y playback system is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model

Address	Data
14	9B
15	C3

PAL model

Address	Data
14	20
15	F8

• EVF Cr BIST Check

10) Select page: 3, address: 10, set data: 89, and press the PAUSE button.
11) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
12) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
13) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
14) When the IC301 EVF Cr playback system is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model

Address	Data
14	2E
15	34

PAL model

Address	Data
14	33
15	DD

• EVF Cb BIST Check

15) Select page: 3, address: 10, set data: 8A, and press the PAUSE button.
16) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
17) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
18) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
19) When the IC301 EVF Cb playback system is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model

Address	Data
14	A9
15	39

PAL model

Address	Data
14	AA
15	03

• PANEL Y BIST Check

20) Select page: 3, address: 10, set data: 98, and press the PAUSE button.
21) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
22) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
23) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
24) When the IC301 PANEL Y playback system is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model

Address	Data
14	9B
15	C3

PAL model

Address	Data
14	20
15	F8

• PANEL Cr BIST Check

25) Select page: 3, address: 10, set data: 99, and press the PAUSE button.
26) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
27) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
28) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
29) When the IC301 PANEL Cr playback system is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model

Address	Data
14	2E
15	34

PAL model

Address	Data
14	33
15	DD

• PANEL Cb BIST Check

30) Select page: 3, address: 10, set data: 9A, and press the PAUSE button.
31) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
32) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
33) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
34) When the IC301 PANEL Cb playback system is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model

Address	Data
14	A9
15	39

PAL model

Address	Data
14	AA
15	03

1-5. IC301 ENCODER BIST Check

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 8, address: 21, set data: 0F, and press the PAUSE button.

• ENCODER Ya BIST Check

3) Select page: 3, address: 10, set data: 8B, and press the PAUSE button.
4) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
5) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
6) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
7) When the IC301 ENCODER Ya playback system is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model

Address	Data
14	FD
15	3E

PAL model

Address	Data
14	58
15	BE

• ENCODER Yb BIST Check

8) Select page: 3, address: 10, set data: 8C, and press the PAUSE button.
9) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
10) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
11) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
12) When the IC301 ENCODER Yb playback system is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model

Address	Data
14	94
15	D6

PAL model

Address	Data
14	A1
15	ED

• ENCODER Ca BIST Check

13) Select page: 3, address: 10, set data: 8D, and press the PAUSE button.
14) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
15) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
16) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
17) When the IC301 ENCODER Ca playback system is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model

Address	Data	
14	11	4E
15	FD	3B

PAL model

Address	Data	
14	E8	7B
15	62	B0

• ENCODER Cb BIST Check

18) Select page: 3, address: 10, set data: 8E, and press the PAUSE button.
19) Select page: 3, address: 12, set data: 10, and press the PAUSE button.
20) Select page: 3, address: 12, set data: 00, and press the PAUSE button.
21) Select page: 3, address: 13, set data: 04, and press the PAUSE button.
22) When the IC301 ENCODER Cb playback system is normal, the display data (combination data) of page: 3, address: 14 and 15 agrees with any combination as shown below.

NTSC model

Address	Data	
14	5C	BC
15	20	A8

PAL model

Address	Data	
14	96	35
15	79	7C

1-6. Processing after Completing Playback System Check

1) Select page: 0, address: 01, and set data: 01.
2) Select page: C, address: 42, set the following data and press the PAUSE button.
    - 00: DCR-TRV6/TRV6E
    - 28: DCR-TRV11/TRV11E
    - 48: DCR-TRV20/TRV20E
3) Select page: 8, address: 21, set data: 03, and press the PAUSE button.
4) Select page: 0, address: 01, and set data: 00.
5) Turn off the power and turn on again.

2. Recording System Check

2-1. Preparations for recording

1) Playback the BIST check tape.(XH5-6(NTSC), XH5-6P(PAL))
2) Select page: 3, address: 10, set data: C0, and press the PAUSE button.
3) Select page: 3, address: 11, set data: 07, and press the PAUSE button.
4) Enter the stop mode.
5) While keep the HOLD switch of the adjustment remote commander at ON(SERVICE) position, eject the BIST check tape and close the cassette compartment without inserting a cassette.
6) Set the power switch to "CAMERA".
7) Select page: 3, address: 01, set data: 0C, and press the PAUSE button.

2-2. IC301 TRX (RF) BIST Check

1) Select page: 3, address: 70, set data: 04, and press the PAUSE button.
2) Select page: 3, address: 70, set data: 00, and press the PAUSE button.
3) When the IC301 TRX (RF) recording system from is normal, the display data (combination data) of page: 3, address: 71 and 72 agrees with any combination as shown below.

NTSC model

Address	Data	
71	26	5E
72	95	E3

PAL model

Address	Data	
71	53	77
72	DF	D5

2-3. Processing after Completing Recording System Check

1) Select page: 3, address: 01, set data: 00, and press the PAUSE button.
2) Turn off the power and turn on again.

3-5. IR TRANSMITTER ADJUSTMENTS

Adjust using a IR receiver jig (J-6082-383-A).

Switch setting:

SUPER LASER LINK .... ON (Red LED is lit)

1. IR Video Carrier Frequency Adjustment (VC-240/241 board)

Mode	VTR stop
Signal	Arbitrary
Measurement Point	Pin ⑤ of CN003 of IR receiver jig (RF) (Or Pin ⑯ of IC1901 of VC-240/241 board)
Measuring Instrument	Frequency counter
Adjustment Page	F
Adjustment Address	6E
Specified Value	f = 11.85 ± 0.05 MHz

Connection of Equipment

Connect the measuring device as shown in the following figure, and adjust.

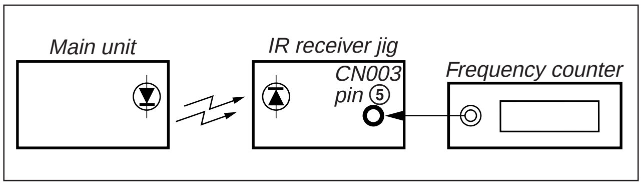


Fig. 5-3-11.

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 3, address: 0C, set data: 08, and press the PAUSE button of the adjustment remote commander.
3) Select page: F, address: 6E, change the data, and set the video carrier frequency (f) to the specified value.
4) Press the PAUSE button of the adjustment remote commander.
5) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
6) Select page: 0, address: 01, and set data: 00.

2. IR Video Deviation Adjustment (VC-240/241 board)

Mode	VTR stop
Signal	Arbitrary
Measurement Point	VIDEO OUT terminal of IR receiver jig (Terminated at 75 Ω)
Measuring Instrument	Oscilloscope
Adjustment Page	F
Adjustment Address	6D
Specified Value	A = 1.00 ± 0.05 V

Connection of Equipment:

Connect the measuring device as shown in the following figure, and adjust.

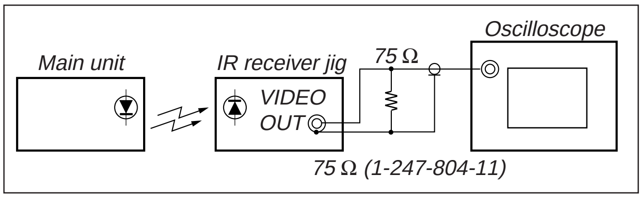


Fig. 5-3-12.

Adjusting method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 3, address: 0C, set data: 02, and press the PAUSE button of the adjustment remote commander.
3) Select page: F, address: 6D, and change the data, set the video signal amplitude (A) to the specified value.
4) Press the PAUSE button of the adjustment remote commander.
5) Select page: 3, address: 0C, set data: 00, and press the PAUSE button of the adjustment remote commander.
6) Select page: 0, address: 01, and set data: 00.

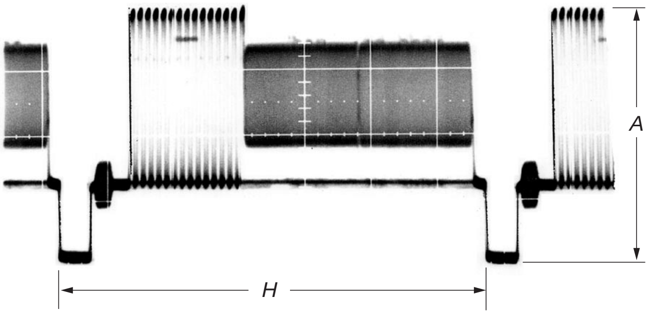


Fig. 5-3-13.

3. IR Audio Deviation Adjustment (VC-240/241 board)

Mode	VTR stop
Signal	Video : No signal Audio : 400Hz, –7.5dBs, Audio left and right terminal of AUDIO/VIDEO jack
Measurement Point	AUDIO L terminal and AUDIO R terminal of IR receiver jig (Terminated at 47kΩ)
Measuring Instrument	Audio level meter
Adjustment Page	F
Adjustment Address	6C
Specified Value	Signal level: –7.5 ± 1.0 dBs Level difference of L and R: Below 2dB

Connection of Equipment:
Connect the measuring device as shown in the following figure, and adjust.

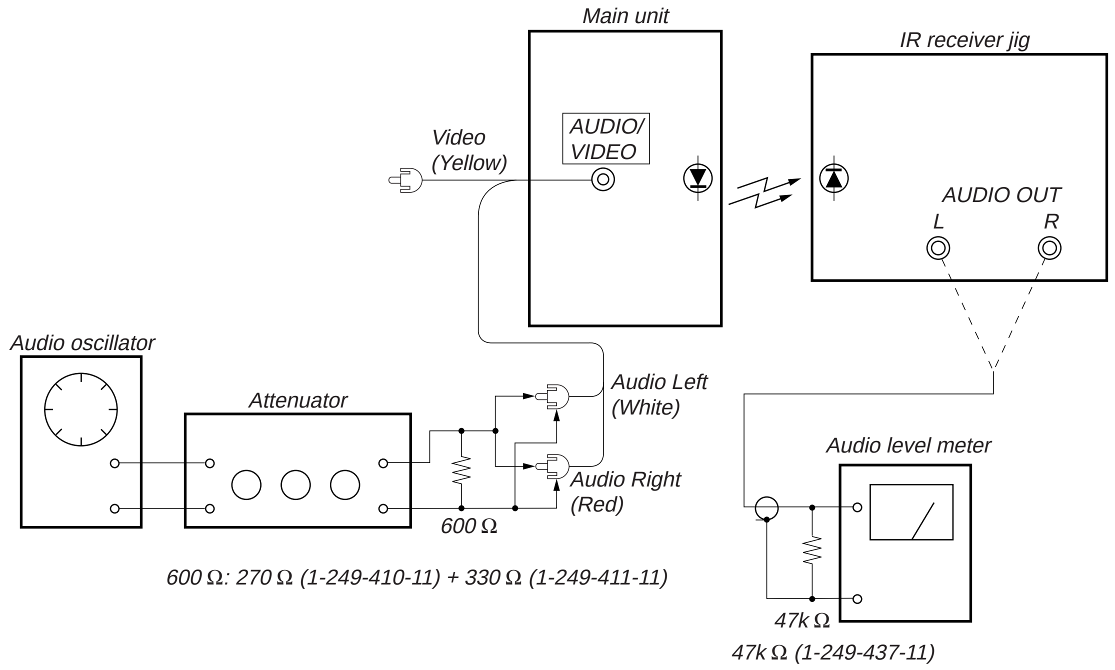

Main unit
IR receiver jig
AUDIO/ VIDEO
Video (Yellow)
AUDIO OUT
L
R
Audio oscillator
Attenuator
Audio Left (White)
Audio Right (Red)
Audio level meter
600 Ω
600 Ω: 270 Ω (1-249-410-11) + 330 Ω (1-249-411-11)
47k Ω
47k Ω (1-249-437-11)

Fig. 5-3-14.

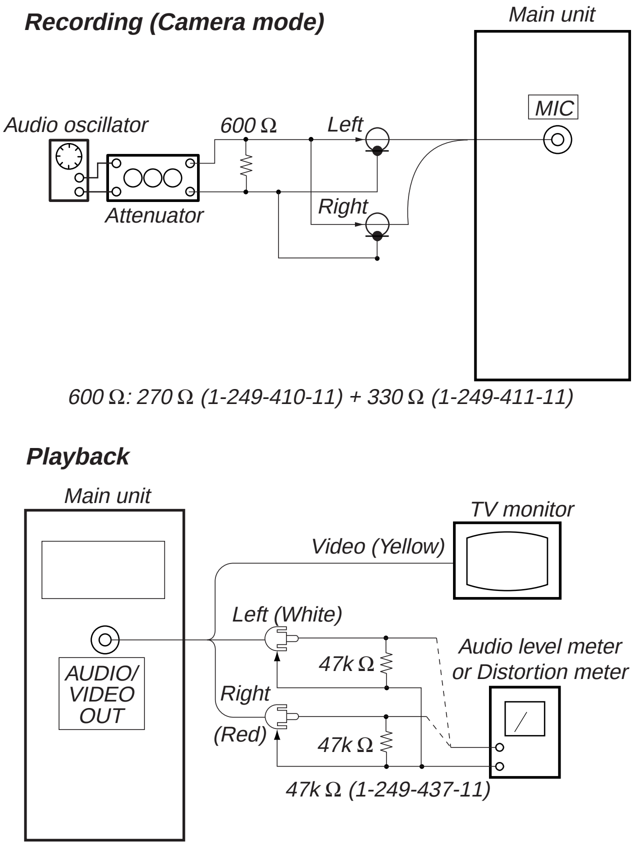
Preparation:
(Only for the AEP/UK model of DCR-TRV6E/TRV11E)
1) Select page: 0, address: 01, and set data: 01.
2) Select page: D, address: 2C, after noting down the data of this address, set data: 32, and press the PAUSE button.
3) Turn off the HOLD switch of the adjustment remote commander.
4) Turn off the power.
5) Turn on the HOLD switch.
6) Turn on the power.

Adjusting method:
1) Select page: 0, address: 01, and set data: 01.
2) Connect the audio level meter to the AUDIO L terminal of the IR receiver jig.
3) Select page: F, address: 6C, change the data and set the 400Hz audio signal level to the specified value.
4) Press the PAUSE button of the adjustment remote commander.
5) Connect the audio level meter to the AUDIO R terminal of the IR receiver jig.
6) Check that the 400Hz audio signal level is within the specified value. If outside, repeat from step 2).
7) Only for AEP/UK model of DCR-TRV6E/TRV11E, select page: D. address: 2C, set the data noted down at step 2) of “Preparation”, and press the PAUSE button.
8) Select page: 0, address: 01, and set data: 00.

3-6. AUDIO SYSTEM ADJUSTMENTS

[Connection of Audio System Measuring Devices]

Connect the audio system measuring devices as shown in Fig. 5-3-15.



Recording (Camera mode)
Main unit
MIC
Audio oscillator
600 Ω
Left
Attenuator
Right
600 Ω: 270 Ω (1-249-410-11) + 330 Ω (1-249-411-11)
Playback
Main unit
TV monitor
Video (Yellow)
Left (White)
Audio level meter
or Distortion meter
47k Ω
AUDIO/
VIDEO
OUT
Right
(Red)
47k Ω
47k Ω (1-249-437-11)

Fig. 5-3-15.

1. Playback Level Check

Mode	VTR playback
Signal	Alignment tape: For audio operation check (XH5-3 (NTSC)) (XH5-3P (PAL))
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter and frequency counter
Specified Value	32 kHz mode: 1 kHz, +3.0 ± 2.0dBs 48 kHz mode: 1 kHz, +3.0 ± 2.0dBs 44.1 kHz mode: The 7.35kHz signal level during EMP OFF is +2.0 ± 2.0dBs. The 7.35kHz signal level during EMP ON is –6 ± 2 dB from the signal level during EMP OFF.

Checking Method:

1) Check that the playback signal level is the specified value.

2. Overall Level Characteristics Check

Mode	Camera recording and playback
Signal	400Hz, –66 dBs signal: MIC jack left and right
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	–7.5 ± 3.0dBs

Checking Method:

1) Input the 400Hz, –66dBs signal in the MIC jack.
2) Record in the camera mode.
3) Playback the recorded section.
4) Check that the 400Hz signal level is the specified value.

3. Overall Distortion Check

Mode	Camera recording and playback
Signal	400Hz, –66dBs signal: MIC jack left and right
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio distortion meter
Specified Value	Below 0.4% (200Hz to 6kHz BPF ON)

Checking Method:

1) Input the 400Hz, –66dBs signal in the MIC jack.
2) Record in the camera mode.
3) Playback the recorded section.
4) Check that the distortion is the specified value.

4. Overall Noise Level Check

Mode	Camera recording and playback
Signal	No signal: Insert a shorting plug in the MIC jack
Measurement Point	Audio left or right terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	Below –45dBs (IHF-A filter ON, 20kHz LPF ON)

Checking Method:

1) Insert a shorting plug in the MIC jack.
2) Record in the camera mode.
3) Playback the recorded section.
4) Check that the noise level is the specified value.

5. Overall Separation Check

Mode	Camera recording and playback
Signal	400Hz, –66dBs signal: MIC jack <right> [left] (Connect the MIC jack <left> [right] to GND)
Measurement Point	Audio <left> [right] terminal of AUDIO VIDEO jack
Measuring Instrument	Audio level meter
Specified Value	Below –40dBs (IHF-A filter ON)

< > : Left channel check
[ ] : Right channel check

Checking Method:

1) Input the 400Hz, –66dBs signal in the <right> [left] terminal of the MIC jack only.
2) Record in the camera mode.
3) Playback the recorded section.
4) Check that the signal level of the audio <left> [right] terminal is the specified value.

5-4. SERVICE MODE

4-1. ADJUSTMENT REMOTE COMMANDER

The adjustment remote commander is used for changing the calculation coefficient in signal processing, EVR data, etc. The adjustment remote commander performs bi-directional communication with the unit using the remote commander signal line (LANC). The resultant data of this bi-directional communication is written in the non-volatile memory.

1. Using the adjustment remote commander

1) Connect the adjustment remote commander to the LANC terminal.
2) Set the HOLD switch of the adjustment remote commander to "HOLD" (SERVICE position). If it has been properly connected, the LCD on the adjustment remote commander will display as shown in Fig. 5-4-1.

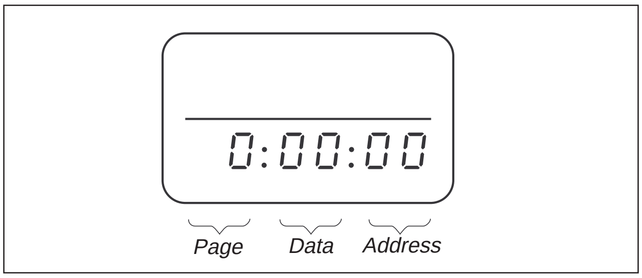


Fig. 5-4-1

3) Operate the adjustment remote commander as follows.
   - Changing the page
     The page increases when the EDIT SEARCH+ button is pressed, and decreases when the EDIT SEARCH– button is pressed. There are altogether 16 pages, from 0 to F.

Hexadecimal notation	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
LCD Display	0	1	2	3	4	5	6	7	8	9	A	b	c	d	E	F
Decimal notation conversion value	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

   - Changing the address
     The address increases when the FF (▶▶) button is pressed, and decreases when the REW (◀◀) button is pressed. There are altogether 256 addresses, from 00 to FF.
   - Changing the data (Data setting)
     The data increases when the PLAY (▶) button is pressed, and decreases when the STOP (■) button is pressed. There are altogether 256 data, from 00 to FF.
   - Writing the adjustment data
     The PAUSE button must be pressed to write the adjustment data (B, C, D, F, 7, 8 page) in the nonvolatile memory. (The new adjusting data will not be recorded in the nonvolatile memory if this step is not performed.)
4) After completing all adjustments, turn off the main power supply once.

2. Precautions upon using the adjustment remote commander

Mishandling of the adjustment remote commander may erase the correct adjustment data at times. To prevent this, it is recommended that all adjustment data be noted down before beginning adjustments and new adjustment data after each adjustment.

4-2. DATA PROCESS

The calculation of the DDS display and the adjustment remote commander display data (hexadecimal notation) are required for obtaining the adjustment data of some adjustment items. In this case, after converting the hexadecimal notation to decimal notation, calculate and convert the result to hexadecimal notation, and use it as the adjustment data. Indicates the hexadecimal-decimal conversion table.

Hexadecimal-decimal Conversion Table ②

Lower digit of hexadecimal Upper digit of hexadecimal	0	1	2	3	4	5	6	7	8	9	A (A)	B (b)	C (c)	D (d)	E (E)	F (F)
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
3	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
4	64	65	66	67	68	69	70	71	72	73	74	77	76	77	78	79
5	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
6	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
7	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
8	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
9	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
A (A)	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
① B (b)	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
C (c)	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
D (d)	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
E (E)	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
F (F)	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255

Note: The characters shown in the parenthesis ( ) shown the display on the adjustment remote commander.

(Example) If the DDS display or the adjustment remote commander shows BD (bd);
Because the upper digit of the adjustment number is B (b), and the lower digit is D (d), the meeting point "189" of ① and ② in the above table is the corresponding decimal number.

Table. 5-4-1.

4-3. SERVICE MODE

1. Setting the Test Mode

Page D	Address 10

Data	Function
00	Normal
01	Forced camera power ON
02	Forced VTR power ON
03	Forced camera + VTR power ON
05	Forced memory power ON

- Before setting the data , select page: 0, address: 01, and set data: 01.
- For page D, the data set is recorded in the non-volatile memory by pressing the PAUSE button of the adjustment remote commander. In this case, take note that the test mode will not be exited even when the main power is turned off.
- After completing adjustments/repairs, be sure to return the data of this address to 00, and press the PAUSE button of the adjustment remote commander.
  Select page: 0, address: 01, and set data: 00.

2. Emergence Memory Address

Page C	Address F4 to FF

Address	Contents
F4	EMG code when first error occurs
F6	Upper: MSW code when shift starts when first error occurs Lower: MSW code when first error occurs
F7	Lower: MSW code to be moved when first error occurs
F8	EMG code when second error occurs
FA	Upper: MSW code when shift starts when second error occurs Lower: MSW code when second error occurs
FB	Lower: MSW code to be moved when second error occurs
FC	EMG code when last error occurs
FE	Upper: MSW code when shift starts when last error occurs Lower: MSW code when last error occurs
FF	Lower: MSW code to be moved when last error occurs

When no error occurs in this unit, data “00” is written in the above addresses (F4 to FF). when first error occurs in the unit, the data corresponding to the error is written in the first emergency address (F4 to F7). In the same way, when the second error occurs, the data corresponding to the error is written in the second emergency address (F8 to FB). Finally, when the last error occurs, the data corresponding to the error is written in the last emergency address (FC to FF).

Note: After completing adjustments, be sure to initialize the data of addresses F4 to FF to “00”.

Initializing method:

1) Select page: 0, address: 01, and set data: 01.
2) Select page: 3, address: 01, set data: 37, and press the PAUSE button.
3) Select page: 0, address: 01, and set data: 00.

2-1. EMG Code (Emergency Code)

Codes corresponding to the errors which occur are written in addresses F4, F8 and FC. The type of error indicated by the code are shown in the following table.

Code	Emergency Type
00	No error
10	Loading motor emergency during loading
11	Loading motor emergency during unloading
22	T reel emergency during normal rotation
23	S reel emergency during normal rotation
24	T reel emergency (Short circuit between S reel terminal and T reel terminal)
30	FG emergency at the start up of the capstan
40	FG emergency at the start up of the drum
42	FG emergency during normal rotation of the drum

2-2. MSW Code

MSW when errors occur:

Information on MSW (mode SW) when errors occur

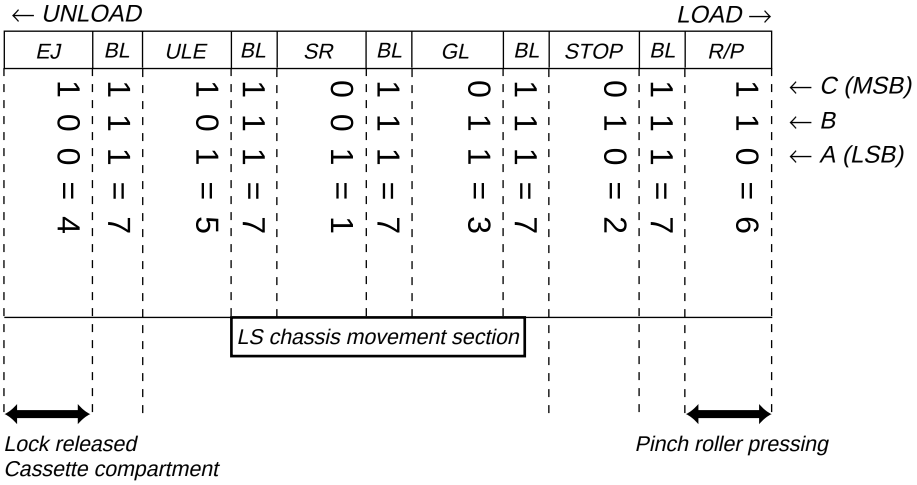
MSW when movement starts:

Information on MSW when movements starts when the mechanism position is moved (When the L motor is moved)

MSW of target of movement:

Information on target MSW of movement when the mechanism position is moved

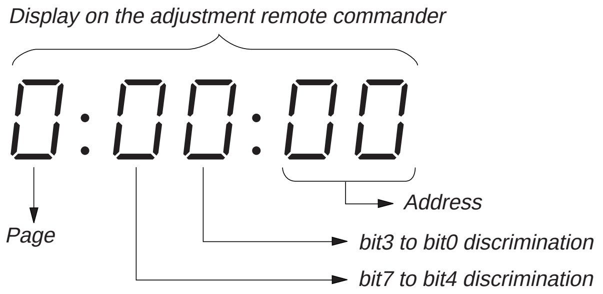
Mechanical Position


← UNLOAD
LOAD →
EJ
BL
ULE
BL
SR
BL
GL
BL
STOP
BL
R/P
100 = 4
111 = 7
101 = 5
111 = 7
001 = 1
111 = 7
011 = 3
111 = 7
010 = 2
111 = 7
110 = 6
← C (MSB)
← B
← A (LSB)
LS chassis movement section
Lock released
Cassette compartment
Pinch roller pressing

Position	Code	Contents
EJ	4	Position at which the cassette component lock is released, at the farthest unload side mechanically at which the mechanism can move no further in the UNLOAD direction.
BL	7	BLANK code, at the boundary between codes.
ULE	5	EJECT completion position. when the cassette is ejected, the mechanism will stop at this position. Cassette IN standby. The guide will start protruding out as the mechanism moves towards the LOAD position.
SR	1	Position at which it is possible to release the S ratchet.
GL	3	Guide loading are performed here.
STOP	2	Stop position in the loading state. The pinch roller separates, the tension regulator returns, and the brake is imposed on both reels.
R/P	6	PB, REC, CUE, REVIEW, PAUSE positions. When pinch roller is pressed, and the tension regulator is ON, the mechanism is operating at this position in modes in which normal images are shown.
NULL	0	Code not existing in the MD. Default value.

3. Bit value discrimination

Bit values must be discriminated using the display data of the adjustment remote commander for following items. Use the table below to discriminate if the bit value is “1” or “0”.


Display on the adjustment remote commander
0:00:00
Address
Page
bit3 to bit0 discrimination
bit7 to bit4 discrimination

Display on the adjustment remote commander	Bit values			
	bit3 or bit7	bit2 or bit6	bit1 or bit5	bit0 or bit4
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
A (A)	1	0	1	0
B (b)	1	0	1	1
C (c)	1	1	0	0
D (d)	1	1	0	1
Ⓑ E (E)	1	1	1	0
F (F)	1	1	1	1

Example: If “8E” is displayed on the adjustment remote commander, the bit values for bit7 to bit4 are shown in the Ⓐ column, and the bit values for bit3 to bit0 are shown in the Ⓑ column.

4. Switch check (1)

Page 2	Address 43

Bit	Function	When bit value=1	When bit value=0
0	VTR MODE SW (PS-30150 block S1)	OFF	ON
1	CAM STBY SW (PS-30150 block S1)	OFF	ON
2	START/STOP SW (PS-30150 block S2)	OFF	ON
3	EJECT SW (FK-30150 block S61)	OFF	ON
4	CC DOWN SW (Mechanism chassis)	OFF (UP)	ON (DOWN)
5	PHOTO FREEZE SW (FK-30150 block S71)	OFF	ON
6	PHOTO STBY SW (PS-30150 block S1)	OFF	ON
7			

Using method:

1) Select page: 2, address: 43.
2) By discriminating the bit value of display data, the state of the switch can be discriminated.

5. Switch check (2)

Page 2	Address 60 to 67

Using method:

1) Select page:2, address: 60 to 67.
2) By discriminating the display data, the pressed key can be discriminated.

Address	Data						
	00 (00 to 0A)	19 (0B to 24)	32 (25 to 44)	59 (45 to 6E)	85 (6F to 9F)	B8 (A0 to D4)	EE (D5 to FF)
60 (KEY AD0) (IC1104 (93))	STOP (FK-30150) (S062)	REW (FK-30150) (S063)	PLAY (FK-30150) (S064)	FF (FK-30150) (S065)	PAUSE (FK-30150) (S066)		No key input
61 (KEY AD1) (IC1104 (94))	REC (FK-30150) (S069,070) Note 1	EDIT SEARCH – (FK-30150) (S068)	EDIT SEARCH + (FK-30150) (S067)	SUPER LASERLINK (FK-30150) (S072)	PHOTO (PHOTO REC) (FK-30150) (071)		No key input
62 (KEY AD2) (IC1104 (95))	SUPER NIGHTSHOT (NS-10 board S001) or (FP-219 flexible S3000)				FOCUS (INFINITY) (MA-385 board) (S2061)	FOCUS (AUTO) (MA-385 board) (S2061)	FOCUS (MANUAL) (MA-385 board) (S2061)
63 (KEY AD3) (IC1104 (96))	EXECUTE (CF-30150 block) (S102)	PROGRAM AE (CF-30150) (S100)	EXPOSURE (CF-30150) (S101)				No key input
64 (KEY AD4) (IC1104 (97))	DISPLAY (CK-92/94 board) (S3217)	DATA CODE (CK-92/94 board) (S3214)	END SEARCH (CK-92/94 board) (S3211)	SELF TIMER (CK-92/94 board) (S3208)	MEMORY PLAY (CK-92/94 board) (S3205) Note 2	PANEL REVERSE (FP-181) (S97)	PANEL NORMAL (FP-81) (S97)
65 (KEY AD5) (IC1104 (98))	MENU (CK-92/94 board) (S3216)	PB ZOOM (CK-92/94 board) (S3213)	TITLE (CK-92/94 board) (S3210)	DIGITAL EFFECT (CK-92/94 board) (S3207)	BACK LIGHT (CK-92/94 board) (S3204)	FADER (CK-92/94 board) (S3202)	No key input
66 (KEY AD6) (IC1104 (99))	MEMORY DELETE (CK-92/94 board) (S3215) Note 2	MEMORY MIX (CK-92/94 board) (S3212) Note 2	MEMORY – (CK-92/94 board) (S3209) Note 2	MEMORY + (CK-92/94 board) (S3206) Note 2	MEMORY INDEX (CK-92/94 board) (S3203) Note 2	PANEL CLOSE (CK-92/94 board) (S3201)	PANEL OPEN (CK-92/94 board) (S3201)
67 (KEY AD7) (IC1104 (100))	VOLUME+ (CF-30150) (S103)	VOLUME– (CF-30150) (S104)	LCD BRIGHT + (CF-30150) (S105)	LCD BRIGHT – (CF-30150) (S106)			No key input

Note1: Except for AEP/UK model of DCR-TRV6E/TRV11E
Note2: DCR-TRV11/TRV11E/TRV20/TRV20E model only
Note3: CK-92 board: DCR-TRV11/TRV11E/TRV20
CK-94 board: DCR-TRV6/TRV6E/TRV20E

6. Record of Use check

Note: When replacing the drum assembly, initialize the data of address: A2 to A4.

Page 2	Address A2 to AA

Address	Function		Remarks
A2	Drum rotation counted time (BCD code)	Minutes	
A3		Hour (L)	10th place digit and 1st place digit of counted time (decimal digit)
A4		Hour (H)	1000th place digit and 100th place digit of counted time (decimal digit)
A5	User initial power on date (BCD code)	Year	After setting the clock, set the date of power on next.
A6		Month	
A7		Day	
A8	Final condensation occurrence date (BCD code)	Year	
A9		Month	
AA		Day	

Using method:

1) The record of use data is displayed at page: 2, addresses: A2 to AA.
   Note: This data will be erased (reset) when the cabinet (R) assy (CK-92/94 board) is removed.

Initializing method:

1) Using the adjustment remote commander, select the object address and set data: 00.

SECTION 6
REPAIR PARTS LIST

6-1. EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

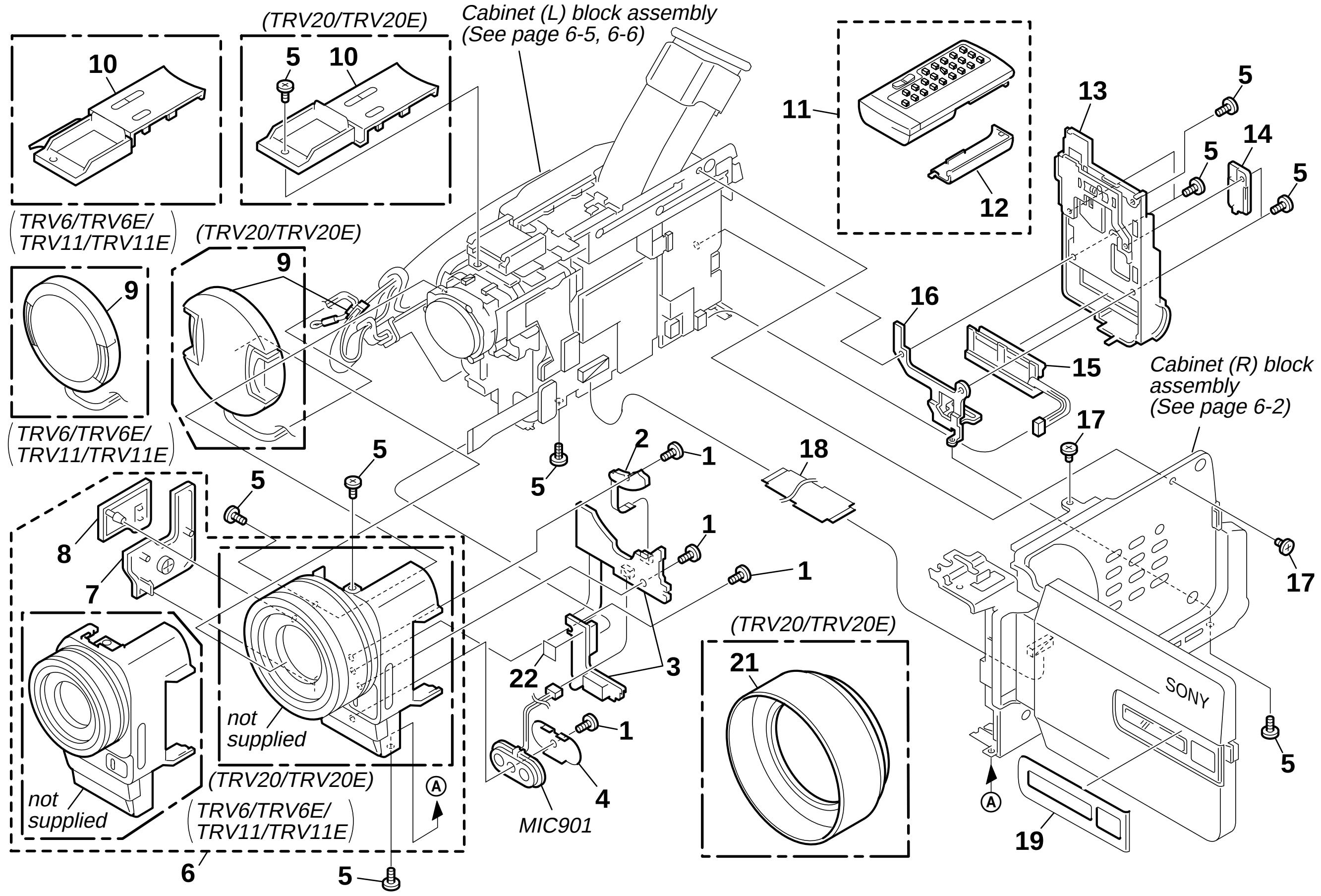
- Abbreviation

AUS: Australian model
JE: Tourist model
CND: Canadian model
CN: Chinese model
HK: Hong Kong model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

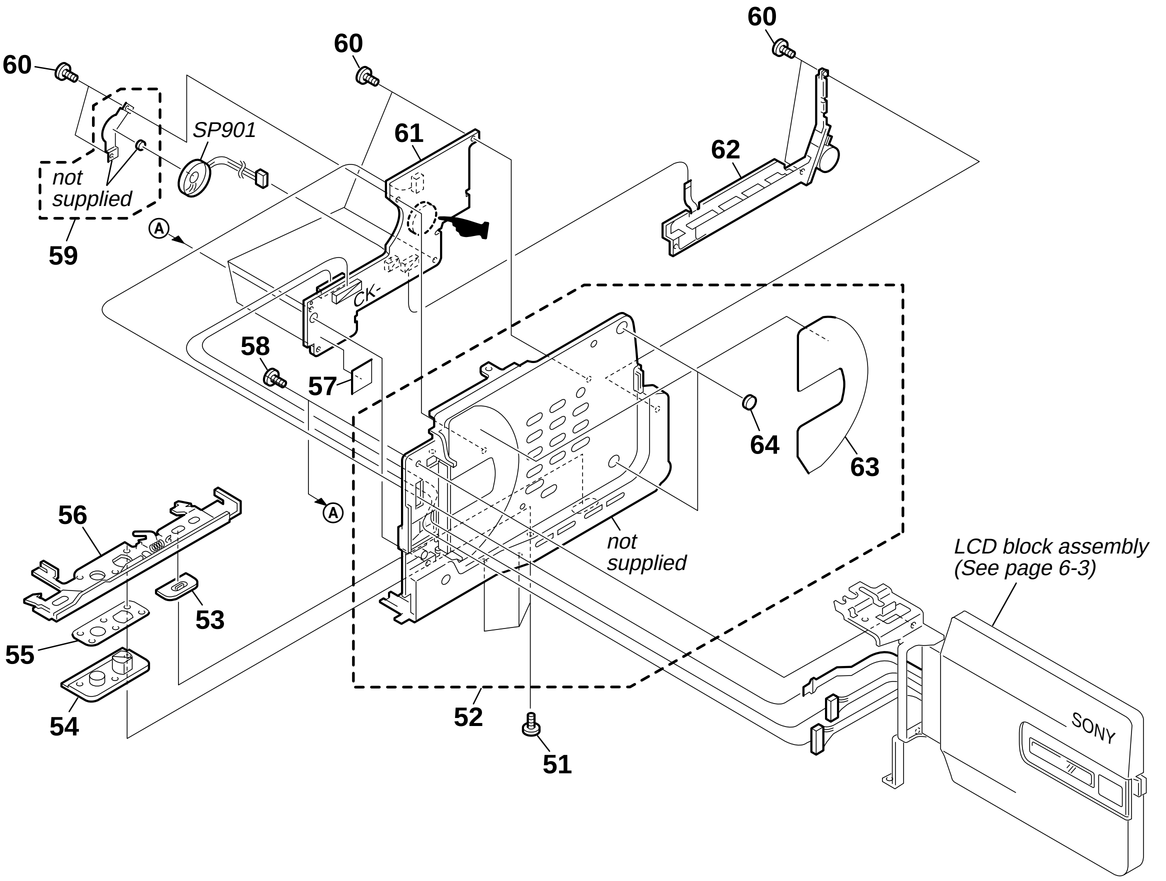
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

6-1-1. FRONT PANEL BLOCK ASSEMBLY AND BATTERY PANEL SECTION


(TRV20/TRV20E)
Cabinet (L) block assembly
(See page 6-5, 6-6)
10
5
10
11
12
13
5
14
5
5
(TRV6/TRV6E/
TRV11/TRV11E)
(TRV20/TRV20E)
9
9
16
15
Cabinet (R) block
assembly
(See page 6-2)
17
(TRV6/TRV6E/
TRV11/TRV11E)
5
2
1
18
5
5
1
8
1
17
7
(TRV20/TRV20E)
21
22
3
SONY
not
supplied
1
not
supplied
(TRV20/TRV20E)
A
4
A
5
(TRV6/TRV6E/
TRV11/TRV11E)
MIC901
19
6
5

Ref. No.	Part No.	Description	Remarks
1	3-713-791-51	SCREW(M1.7X3.5), TAPPING, P2	
2	A-7074-311-A	SE-107 BOARD, COMPLETE	
3	A-7074-308-A	MA-385 BOARD, COMPLETE	
* 4	3-059-741-01	RETAINER, MICROPHONE	
5	3-989-735-81	SCREW(M1.7), LOCK ACE, P2	
6	X-3950-518-1	PANEL ASSY (14), FRONT (TRV11/TRV11E)	
6	X-3950-512-1	PANEL ASSY, FRONT (TRV20/TRV20E)	
6	X-3950-523-1	PANEL ASSY (13), FRONT (TRV6/TRV6E)	
7	3-059-756-01	COVER(S), JACK	
8	3-059-755-01	COVER(DC), JACK	
9	X-3949-944-1	CAP ASSY, LENS (TRV20/TRV20E)	
9	X-3950-537-1	CAP ASSY, LENS (TRV6/TRV6E/TRV11/TRV11E)	
10	X-3950-519-1	CABINET ASSY (14), TOP	(TRV6/TRV6E/TRV11/TRV11E)
10	X-3950-513-1	CABINET ASSY, TOP (TRV20/TRV20E)	
11	1-475-141-21	REMOTE COMMANDER (RMT-808)	(TRV6/TRV6E:AUS,E,HK,JE,CN)
11	1-475-141-31	REMOTE COMMANDER (RMT-809)	(TRV6E:AEP,UK)
11	1-475-950-21	REMOTE COMMANDER (RMT-811)	(TRV11/TRV11E:AUS,E,HK,JE,CN/TRV20/TRV20E)
11	1-475-950-31	REMOTE COMMANDER (RMT-812)	(TRV11E:AEP,UK)
12	3-053-056-01	LID, BATTERY CASE (FOR RMT-811,812)	(TRV11/TRV11E/TRV20/TRV20E)
12	3-742-854-21	LID, BATTERY CASE (FOR RMT-808,809)	(TRV6/TRV6E)
13	X-3950-477-1	PANEL ASSY, BT	
14	3-059-721-01	LID, CPC	
15	1-694-493-11	TERMINAL BOARD, BATTERY	
16	3-059-720-01	BRACKET (LOWER), STRAP	
17	3-989-735-11	SCREW (M1.7), LOCK ACE, P2	
18	1-677-561-11	PWB, FP-179 FLEXIBLE	
19	3-059-735-41	PLATE, P ORNAMENTAL (TRV11E)	
19	3-059-735-11	PLATE, P ORNAMENTAL (TRV20)	
19	3-059-735-21	PLATE, P ORNAMENTAL (TRV20E)	
19	3-059-735-31	PLATE, P ORNAMENTAL (TRV11)	
19	3-059-735-51	PLATE, P ORNAMENTAL (TRV6E)	
19	3-059-735-61	PLATE, P ORNAMENTAL (TRV6)	
21	3-057-401-01	HOOD, LENS (TRV20/TRV20E)	
* 22	3-062-012-01	SPACER, F	
MIC901	1-418-351-21	MICROPHONE UNIT	

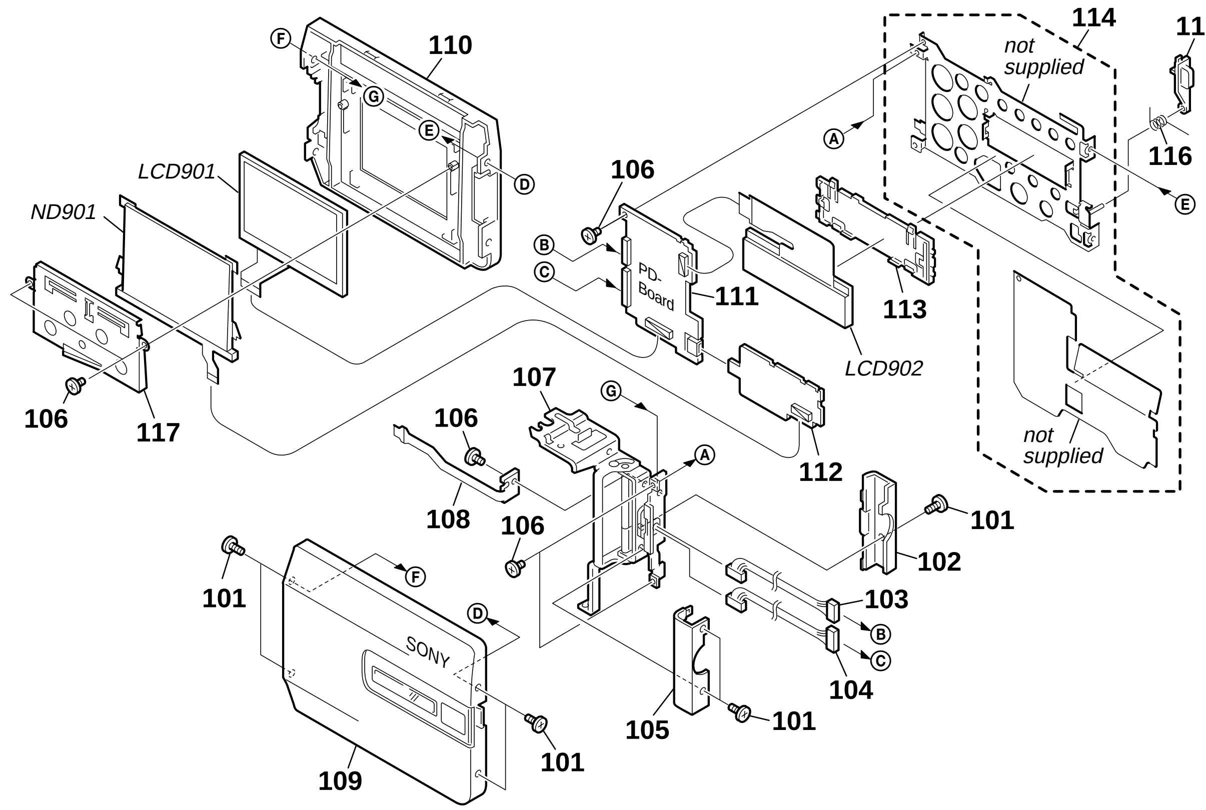
6-1-2. CABINET (R) BLOCK ASSEMBLY


60
60
60
SP901
61
62
not supplied
59
A
CK-
58
57
64
63
56
A
not supplied
LCD block assembly (See page 6-3)
53
55
54
52
51
SONY

☛ : BT3201(lithium battery) CK-92/CK-94 board on the mount position. (See page 4-77, 4-81)

Ref. No.	Part No.	Description	Remarks
51	3-055-573-01	SCREW (M1.7), LOCK ACE, P2	
52	X-3950-514-2	CABINET (R) ASSY	(TRV11/TRV11E/TRV20/TRV20E)
52	X-3950-524-1	CABINET (R) ASSY (TRV6/TRV6E)	
53	3-055-324-01	KNOB, EJECT	
54	3-055-257-01	TRIPOD (LARGE)	
* 55	3-055-258-01	SHEET, TRIPOD INSULATNG	
56	X-3950-472-1	FRAME ASSY, BOTTOM	
* 57	3-055-885-01	SHEET, MUFFLE	
58	3-051-471-01	SCREW (M1.7), P2	
* 59	X-3950-471-1	RETAINER ASSY, SPEAKER	
60	3-713-791-51	SCREW (M1.7X3.5), TAPPING, P2	
61	A-7074-313-A	CK-92 (H) BOARD, COMPLETE	(TRV11/TRV11E/TRV20)
61	A-7074-393-A	CK-94 (L) BOARD, COMPLETE (TRV6/TRV6E)	
61	A-7074-396-A	CK-94 (H) BOARD, COMPLETE (TRV20E)	
62	1-418-979-11	SWITCH BLOCK, CONTROL(CF30150)	
63	3-059-768-01	SHEET, GUARD	
64	3-959-978-02	CUSHION, PANEL	
SP901	1-529-590-11	SPEAKER (2.0CM)	

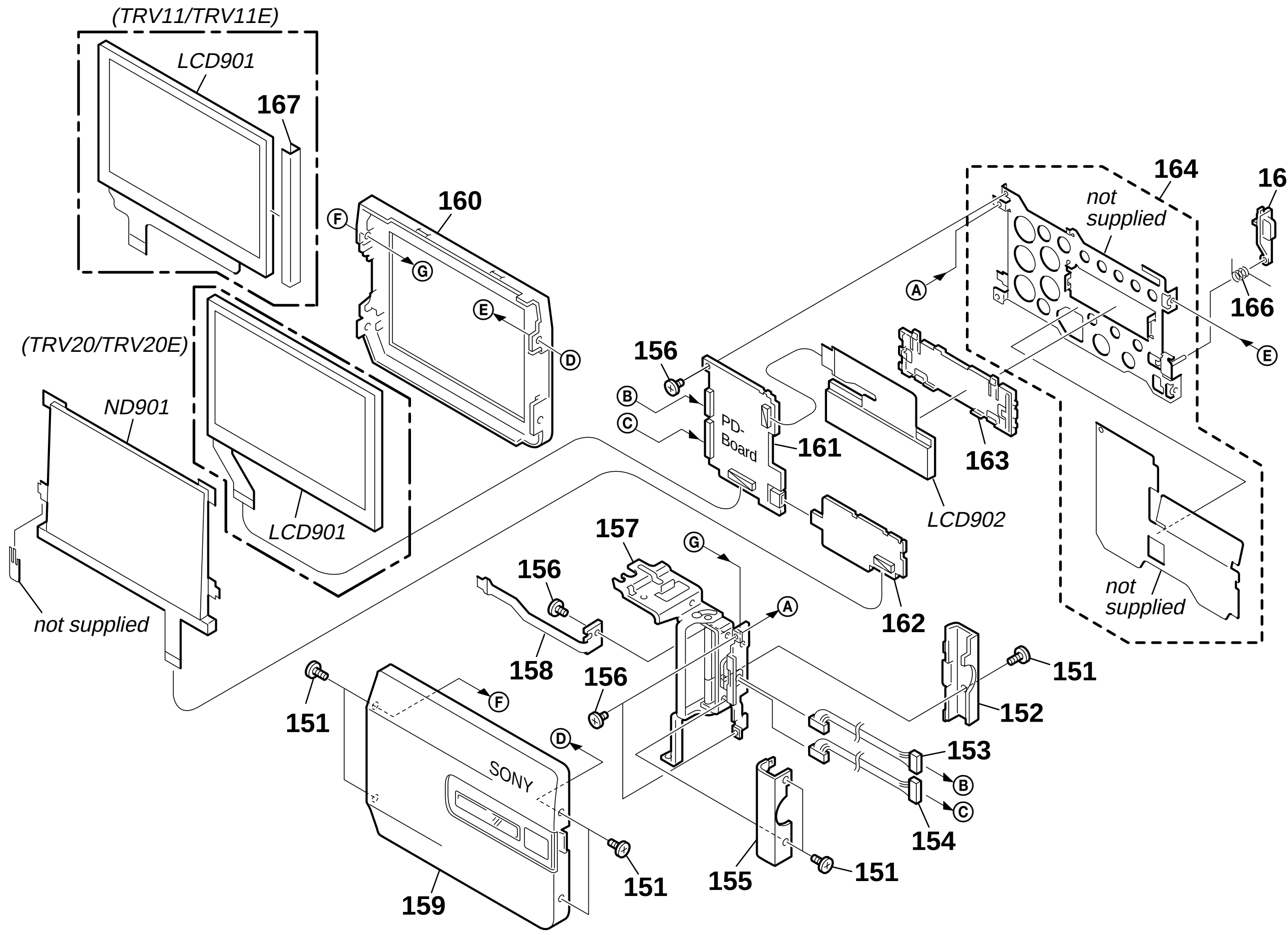
6-1-3. LCD BLOCK ASSEMBLY (TRV6/TRV6E MODEL)


F
110
G
E
D
LCD901
ND901
106
117
106
B
C
PD-
Board
111
113
LCD902
114
not
supplied
115
116
A
E
not
supplied
107
G
106
A
108
106
112
101
102
103
B
C
104
101
F
D
SONY
101
105
101
109

Ref. No.	Part No.	Description	Remarks
101	3-989-735-81	SCREW (M1.7), LOCK ACE, P2	
102	3-059-738-01	COVER (REAR), HINGE	
103	1-960-425-11	HARNESS (PC-118)	
104	1-960-426-11	HARNESS (PC-119)	
105	3-059-737-01	COVER (FRONT), HINGE	
106	4-974-725-01	SCREW (M1.7X2.5), P	
107	X-3950-468-1	HINGE ASSY	
108	1-677-563-21	PWB, FP-181 FLEXIBLE	
109	X-3950-469-1	CABINET (C) ASSY, P (TRV6/TRV6E:AUS,E,HK,JE,CN)	
109	X-3950-517-1	CABINET (C) ASSY, P (TRV6E:AEP,UK)	
110	3-060-105-01	CABINET (M) (13), P	
111	A-7074-394-A	PD-124 (ST2) BOARD, COMPLETE	
⚠112	1-418-877-21	TRANSFORMER UNIT, INVERTER	
113	3-055-289-01	HOLDER, LCD	
114	X-3950-467-1	FRAME ASSY, P	
115	3-059-739-01	BUTTON, PANEL OPEN	
116	3-059-740-01	SPRING (P), TORSION	
117	3-060-106-01	FRAME (13), P	
LCD901	8-753-050-53	ACX300CKA-1	
LCD902	A-7094-885-A	INDICATION (LCD) BLOCK ASSY	
⚠ND901	1-517-751-51	TUBE, FLUORESCENT,COLD CATHODE	

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

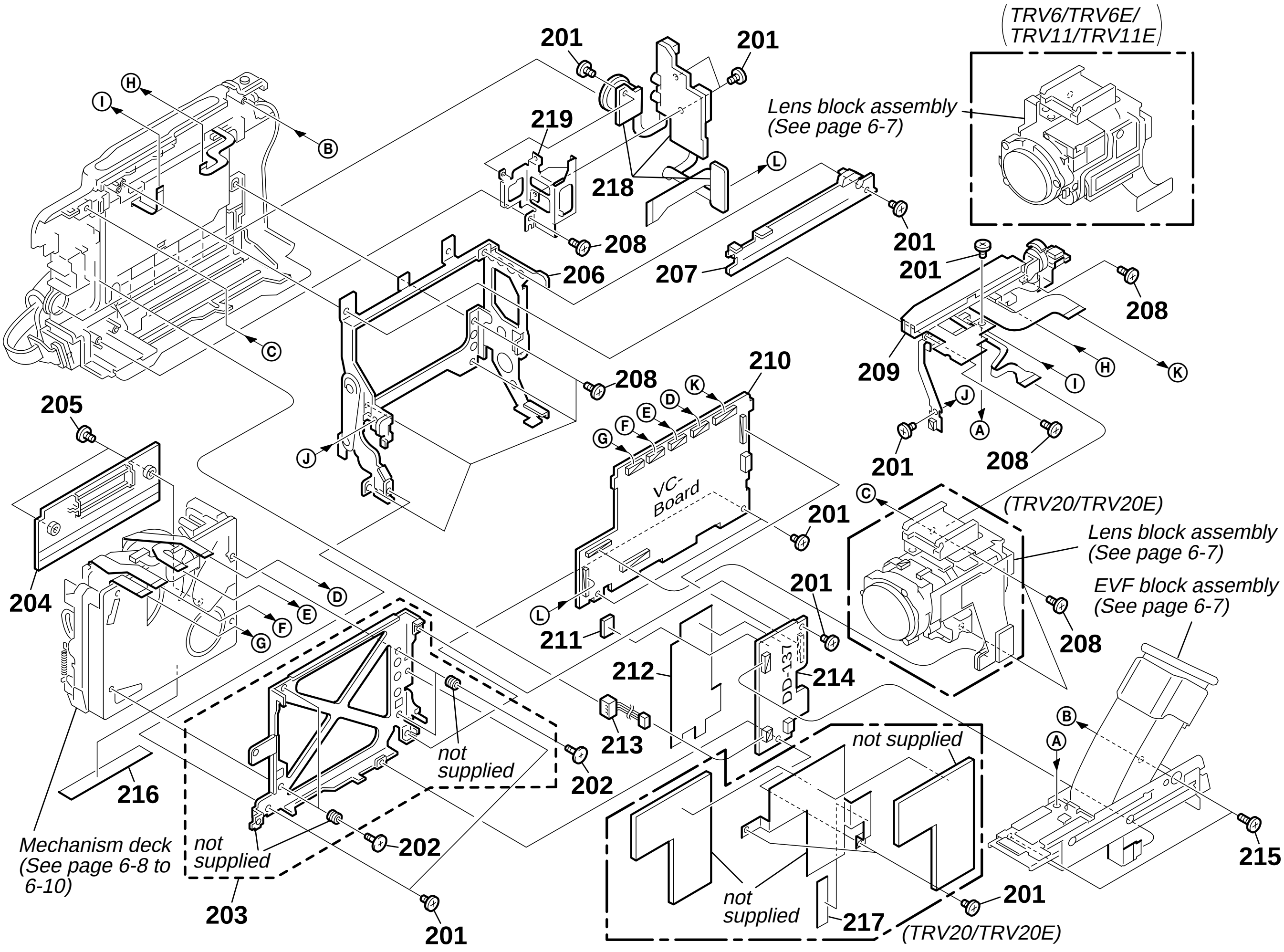
6-1-4. LCD BLOCK ASSEMBLY (TRV11/TRV11E/TRV20/TRV20E MODEL)


(TRV11/TRV11E)
LCD901
167
160
164
not supplied
165
166
(TRV20/TRV20E)
ND901
LCD901
not supplied
156
PD-Board
161
163
LCD902
157
156
162
not supplied
158
156
151
152
151
153
154
151
155
151
159
SONY
A
B
C
D
E
F
G

Ref. No.	Part No.	Description	Remarks
151	3-989-735-81	SCREW (M1.7), LOCK ACE, P2	
152	3-059-738-01	COVER (REAR), HINGE	
153	1-960-425-11	HARNESS (PC-118)	
154	1-960-426-11	HARNESS (PC-119)	
155	3-059-737-01	COVER (FRONT), HINGE	
156	4-974-725-01	SCREW (M1.7X2.5), P	
157	X-3950-468-1	HINGE ASSY	
158	1-677-563-21	PWB, FP-181 FLEXIBLE	
159	X-3950-469-1	CABINET (C) ASSY, P (TRV11/TRV11E:AUS,E,HK,JE,CN/TRV20/TRV20E:AUS,E,HK,JE,CN)	
159	X-3950-517-1	CABINET (C) ASSY, P (TRV11E:AEP,UK/TRV20E:AEP,UK)	
160	3-059-736-01	CABINET (M), P	
161	A-7074-314-A	PD-123 (CA) BOARD, COMPLETE (TRV20)	
161	A-7074-367-A	PD-123 (SH) BOARD, COMPLETE (TRV11/TRV11E)	
161	A-7074-397-A	PD-124 (ST3) BOARD, COMPLETE (TRV20E)	
⚠162	1-418-877-11	TRANSFORMER UNIT, INVERTER	
163	3-055-289-01	HOLDER, LCD	
164	X-3950-467-1	FRAME ASSY, P	
165	3-059-739-01	BUTTON, PANEL OPEN	
166	3-059-740-01	SPRING (P), TORSION	
167	3-062-691-01	SHEET, LCD (TRV11/TRV11E)	
LCD901	1-803-856-21	INDICATOR MODULE LIQUID CRYST (TRV11/TRV11E)	
LCD901	1-803-862-21	INDICATOR MODULE LIQUID CRYST (SERVICE) (TRV20)	
LCD901	8-753-050-44	ACX305AK-J (SERVICE)(TRV20E)	
LCD902	A-7094-885-A	INDICATION (LCD) BLOCK ASSY	
⚠ND901	1-517-869-31	TUBE, FLUORESCENT,COLD CATHODE (TRV20)	
⚠ND901	1-517-869-41	TUBE, FLUORESCENT,COLD CATHODE (TRV11/TRV11E)	
⚠ND901	1-517-869-51	TUBE, FLUORESCENT,COLD CATHODE (TRV20E)	

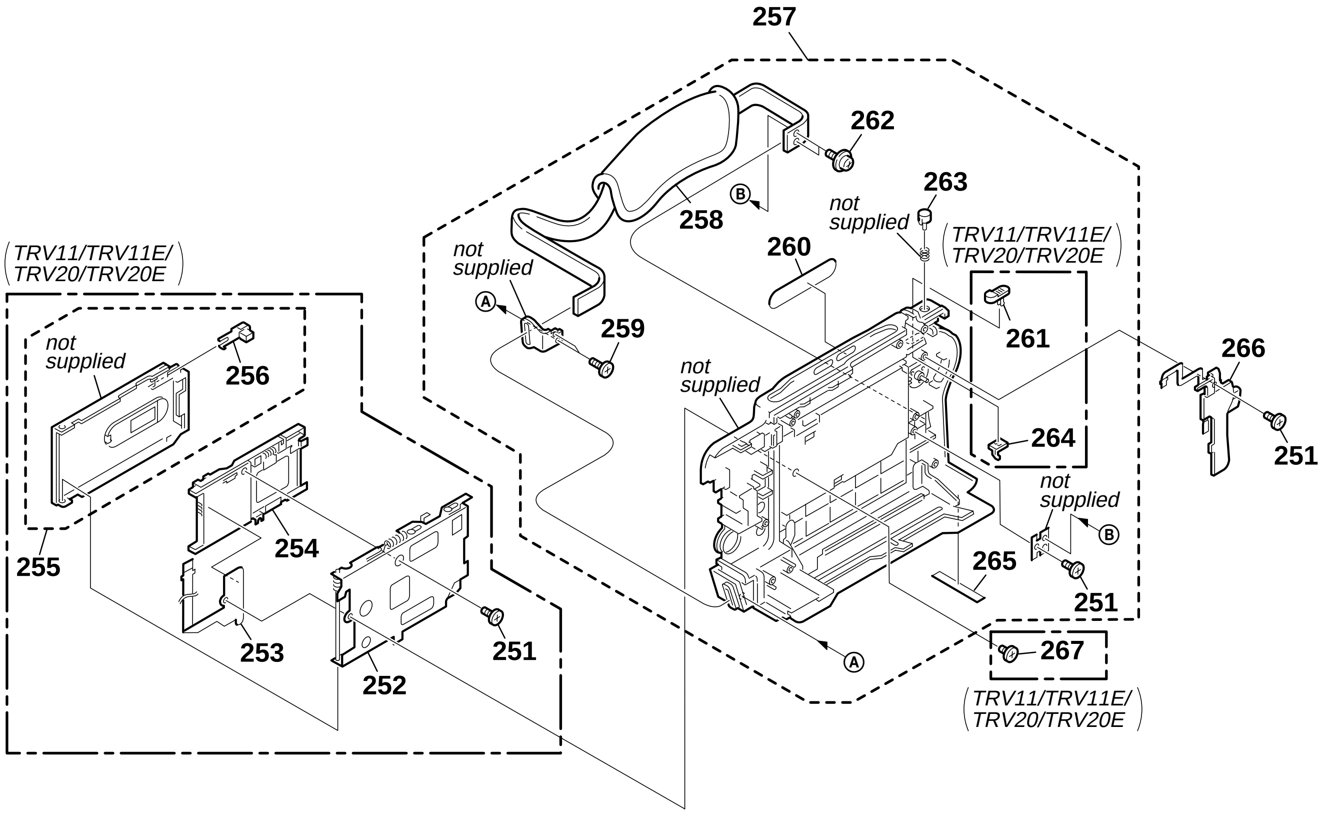
Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-1-5. CABINET (L) SECTION


TRV6/TRV6E/
TRV11/TRV11E
201
201
219
218
L
Lens block assembly
(See page 6-7)
H
I
B
208
201
207
206
201
208
210
209
H
K
I
J
A
208
201
C
205
208
K
D
E
F
G
J
VC-
Board
201
(TRV20/TRV20E)
Lens block assembly
(See page 6-7)
EVF block assembly
(See page 6-7)
204
D
E
F
G
201
L
211
208
212
DD-137
214
213
B
A
not supplied
not
supplied
202
216
215
202
201
Mechanism deck
(See page 6-8 to
6-10)
not
supplied
203
201
not
supplied
217
(TRV20/TRV20E)

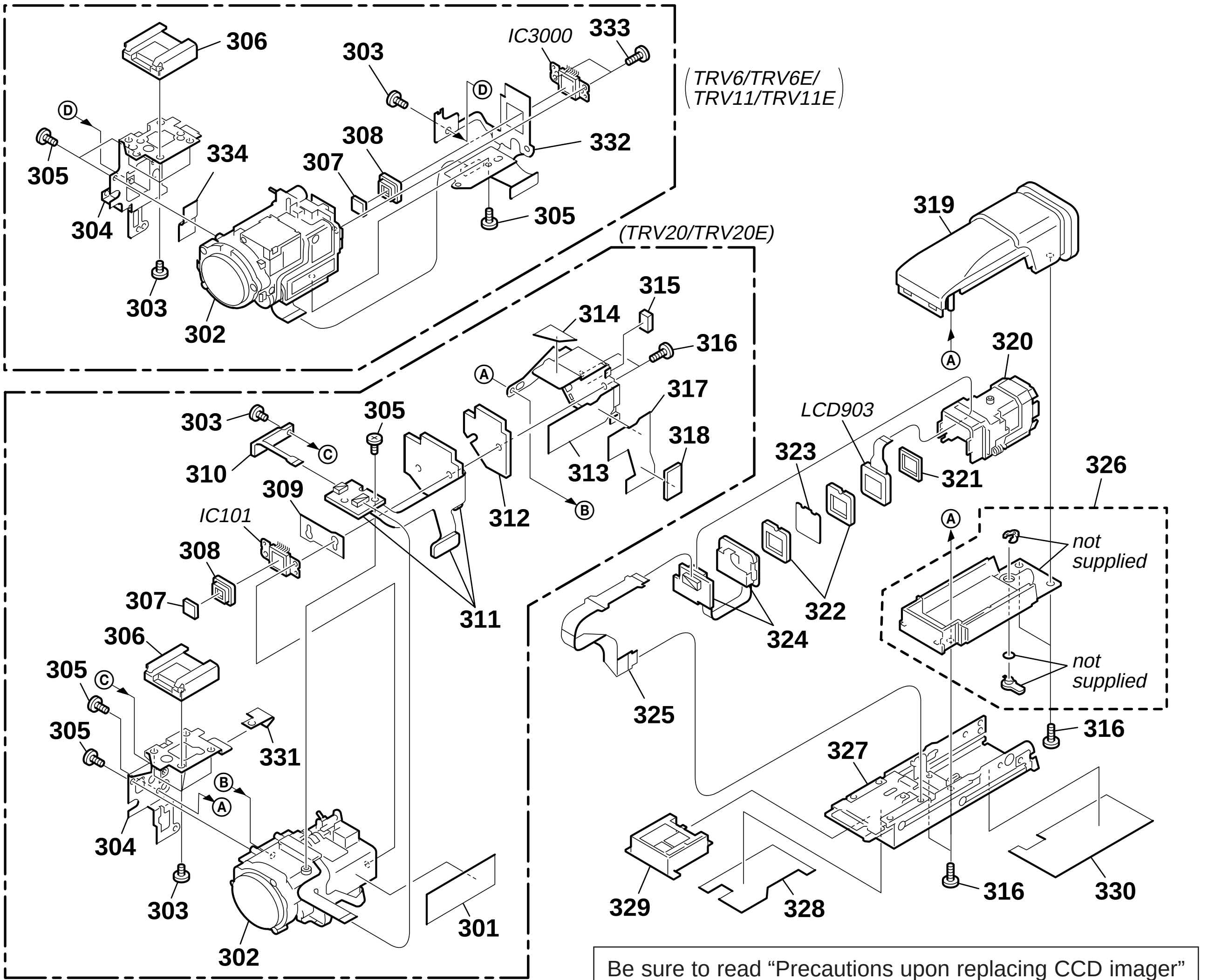
Ref. No.	Part No.	Description	Remarks
201	4-974-725-01	SCREW (M1.7X2.5), P	
202	3-059-718-01	SCREW (M1.4X1.5)	
203	X-3950-475-1	FRAME ASSY, MD	
204	3-059-722-01	COVER, CASSETTE COMPARTMENT	
205	3-989-735-91	SCREW (M1.7), LOCK ACE, P2	
206	X-3950-476-1	FRAME ASSY, CS	
207	3-059-724-01	COVER, ZOOM	
208	3-713-791-51	SCREW (M1.7X3.5), TAPPING, P2	
209	1-418-973-31	SWITCH BLOCK, CONTROL (FK30150)	(TRV11/TRV11E:AUS,E,HK,JE,CN/TRV20/TRV20E)
209	1-418-973-41	SWITCH BLOCK, CONTROL (FK30150)	(TRV11E:AEP,UK)
209	1-418-973-51	SWITCH BLOCK, CONTROL (FK30150)	(TRV6/TRV6E:AUS,E,HK,JE,CN)
209	1-418-973-61	SWITCH BLOCK, CONTROL (FK30150)	(TRV6E:AEP,UK)
210	A-7094-887-A	VC-240 (H) BOARD, COMPLETE	(TRV20/TRV20E)
210	A-7094-963-A	VC-241 (M-CE) BOARD, COMPLETE (SERVICE)	(TRV11E:AEP,UK)
210	A-7094-995-A	VC-241 (M) BOARD, COMPLETE (SERVICE)	(TRV11/TRV11E:AUS,E,HK,JE,CN)
210	A-7094-996-A	VC-241 (L) BOARD, COMPLETE (SERVICE)	(TRV6/TRV6E:AUS,E,HK,JE,CN)
210	A-7094-997-A	VC-241 (L-CE) BOARD, COMPLETE (SERVICE)	(TRV6E:AEP,UK)
211	9-911-839-00	RUBBER, DD	
* 212	3-059-723-01	SHEET, DD SHIELD	
213	1-785-247-21	CONNECTOR, DC-IN	
214	A-7074-307-A	DD-137 (H) BOARD, COMPLETE	(TRV20/TRV20E)
214	A-7074-365-A	DD-137 (M) BOARD, COMPLETE	(TRV11/TRV11E)
214	A-7074-392-A	DD-137 (L) BOARD, COMPLETE (TRV6/TRV6E)	
215	3-713-791-11	SCREW (M1.7X5), TAPPING, P2	
216	3-059-725-01	LABEL, LS	
* 217	3-061-553-01	SHEET, VC (TRV20/TRV20E)	
218	A-7074-309-A	JK-188 BOARD, COMPLETE	
* 219	3-059-719-01	FRAME, JACK	

6-1-6. CABINET (L) SECTION-2


257
262
263
not supplied
B
258
260
TRV11/TRV11E/ TRV20/TRV20E
TRV11/TRV11E/ TRV20/TRV20E
not supplied
A
259
261
266
not supplied
256
not supplied
264
251
not supplied
B
255
254
265
251
253
251
252
267
A
TRV11/TRV11E/ TRV20/TRV20E

Ref. No.	Part No.	Description	Remarks
251	3-713-791-51	SCREW (M1.7X3.5), TAPPING, P2	
252	X-3949-613-1	CHASSIS ASSY, MS (TRV11/TRV11E/TRV20/TRV20E)	
253	1-677-565-11	PWB, FP-183 FLEXIBLE (TRV11/TRV11E/TRV20/TRV20E)	
254	1-785-593-31	CONNECTOR, MEMORY STICK (TRV11/TRV11E/TRV20/TRV20E)	
255	X-3949-674-1	LID ASSY, MS (TRV11/TRV11E/TRV20/TRV20E)	
256	3-055-218-01	KNOB, MS EJECT (TRV11/TRV11E/TRV20/TRV20E)	
257	X-3950-520-1	CABINET (L) ASSY (TRV11E:AEP,UK)	
257	X-3950-511-1	CABINET (L) ASSY (TRV20)	
257	X-3950-515-1	CABINET (L) ASSY (TRV20E)	
257	X-3950-516-1	CABINET (L) ASSY (14) (TRV11)	
257	X-3950-522-1	CABINET (L) ASSY (TRV6)	
257	X-3950-525-1	CABINET (L) ASSY (TRV6E:AEP,UK)	
257	X-3950-534-1	CABINET (L) ASSY (TRV11E:AUS,E,HK,JE,CN)	
257	X-3950-535-1	CABINET (L) ASSY (TRV6E:AUS,E,HK,JE,CN)	
258	3-061-550-01	BELT, GRIP	
259	3-713-791-11	SCREW (M1.7X5), TAPPING, P2	
260	3-059-821-11	SHEET, REC INDICATION (TRV11/TRV11E:AUS,E,HK,JE/TRV20/TRV20E)	
260	3-059-821-21	SHEET, REC INDICATION (TRV11E:AEP,UK)	
260	3-059-821-31	SHEET, REC INDICATION (TRV6E:AEP,UK)	
260	3-059-821-41	SHEET, REC INDICATION (TRV6/TRV6E:AUS,E,HK,JE,CN)	
261	3-055-202-01	KNOB, MS OPEN (TRV11/TRV11E/TRV20/TRV20E)	
262	3-679-362-11	SCREW	
263	3-056-120-01	BUTTON, F	
264	3-059-831-01	BASE, MS OPEN (TRV11/TRV11E/TRV20/TRV20E)	
* 265	3-055-189-01	FOOT (A)	
266	1-418-972-11	SWITCH BLOCK, CONTROL (PS30150)	
267	4-974-725-01	SCREW (M1.7X2.5), P	

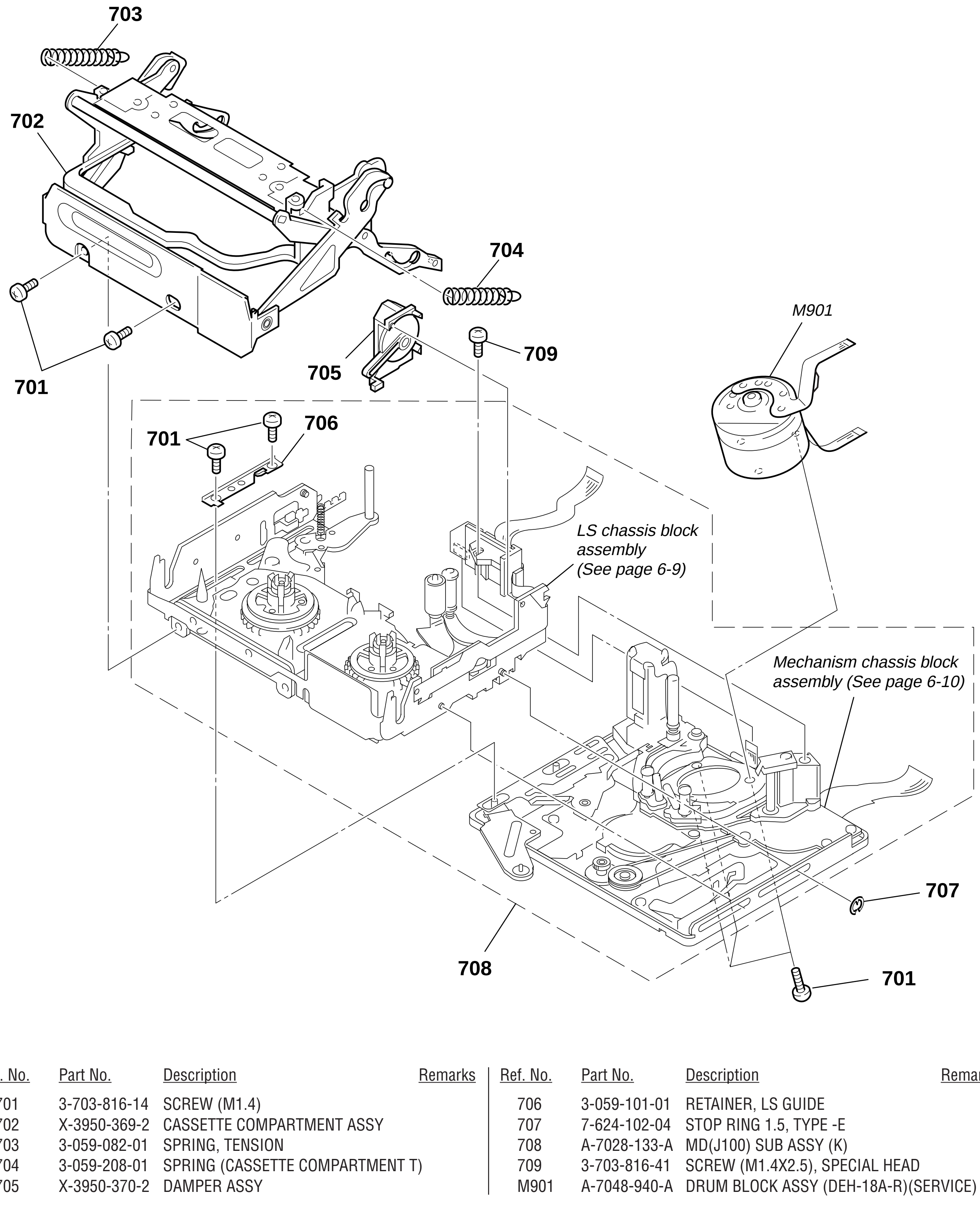
6-1-7. LENS BLOCK ASSEMBLY AND EVF BLOCK ASSEMBLY


306
303
IC3000
333
(TRV6/TRV6E/TRV11/TRV11E)
D
D
305
334
308
307
332
305
304
303
302
(TRV20/TRV20E)
319
315
314
316
320
A
A
317
303
305
LCD903
318
310
C
323
313
326
309
312
B
321
IC101
A
not supplied
308
311
322
307
324
306
not supplied
305
C
325
316
305
331
327
B
A
304
303
301
329
328
316
330
302

Be sure to read “Precautions upon replacing CCD imager” on page 4-12,14 when changing the CCD imager.

Ref. No.	Part No.	Description	Remarks
* 301	3-061-335-01	SHEET, L (TRV20/TRV20E)	
302	8-848-737-01	DEVICE, LENS LSV-650B (TRV6/TRV6E/TRV11/TRV11E)	
302	8-848-739-01	DEVICE, LENS LSV-690A (TRV20/TRV20E)	
303	4-974-725-01	SCREW (M1.7X2.5), P	
304	3-059-726-01	FRAME, LENS (TRV20/TRV20E)	
304	3-060-101-01	FRAME (14), LENS (TRV6/TRV6E/TRV11/TRV11E)	
305	3-713-791-51	SCREW (M1.7X3.5), TAPPING, P2	
306	1-785-594-11	CONNECTOR (HOT SHOE), OUTER	
307	1-758-155-21	FILTER BLOCK, OPTICAL (TRV6/TRV6E/TRV11/TRV11E)	
307	1-758-353-11	FILTER BLOCK, OPTICAL (TRV20/TRV20E)	
308	3-053-973-01	RUBBER (W), SEAL	
309	3-059-729-01	SHEET, CD (TRV20/TRV20E)	
310	A-7074-312-A	NS-10 BOARD, COMPLETE (TRV20/TRV20E)	
311	A-7074-306-A	CD-252 (NT) BOARD, COMPLETE (TRV20)	
311	A-7074-395-A	CD-252 (PAL) BOARD, COMPLETE (TRV20E)	
* 312	3-059-728-01	CUSHION, CD (TRV20/TRV20E)	
* 313	3-059-727-01	CASE, CD SHIELD (TRV20/TRV20E)	
* 314	3-061-333-01	SHEET (2), K (TRV20/TRV20E)	
* 315	3-060-204-01	RUBBER, CD (TRV20/TRV20E)	
316	3-713-791-11	SCREW (M1.7X5), TAPPING, P2	
* 317	3-061-332-01	SHEET (1), K (TRV20/TRV20E)	
* 318	3-061-334-01	CUSHION, K (TRV20/TRV20E)	
319	X-3950-463-1	CABINET (UPPER) ASSY, VF	
320	X-3950-465-1	LENS ASSY, VF	
321	3-059-734-01	CUSHION (1), LCD	
322	3-059-732-01	CUSHION (2), LCD	
323	3-059-731-01	ILLUMINATOR, BL	
324	A-7074-310-A	LB-64 BOARD, COMPLETE	
325	1-677-562-11	PWB, FP-180 FLEXIBLE	
326	X-3950-464-1	CABINET (LOWER) ASSY, VF	
327	X-3950-466-1	BASE ASSY, VF	
* 328	3-059-733-01	SHEET, FLEXIBLE RETAINER	
329	3-059-730-01	CLAMP, VF FLEXIBLE	
* 330	3-061-440-01	SHEET, VF K	
* 331	3-062-302-01	SHEET, NEGI (TRV20/TRV20E)	
332	1-677-566-21	FP-219 FLEXIBLE, COMPLETE (TRV6/TRV6E/TRV11/TRV11E)	
333	3-713-791-41	SCREW (M1.7X5), TAPPING, P2 (TRV6/TRV6E/TRV11/TRV11E)	
334	3-060-104-01	SHEET, LENS (TRV6/TRV6E/TRV11/TRV11E)	
IC101	A-7031-073-A	CCD BLOCK ASSY (TRV20/TRV20E)	
IC3000	A-7031-074-A	CCD BLOCK ASSY (TRV6E/TRV11E)	
IC3000	A-7031-075-A	CCD BLOCK ASSY (TRV6/TRV11)	
LCD903	8-753-026-77	LCX033AK-J (TRV20/TRV20E)	
LCD903	A-7094-871-A	LCX032AK-1/5 COMPL (TRV6/TRV6E/TRV11/TRV11E)	

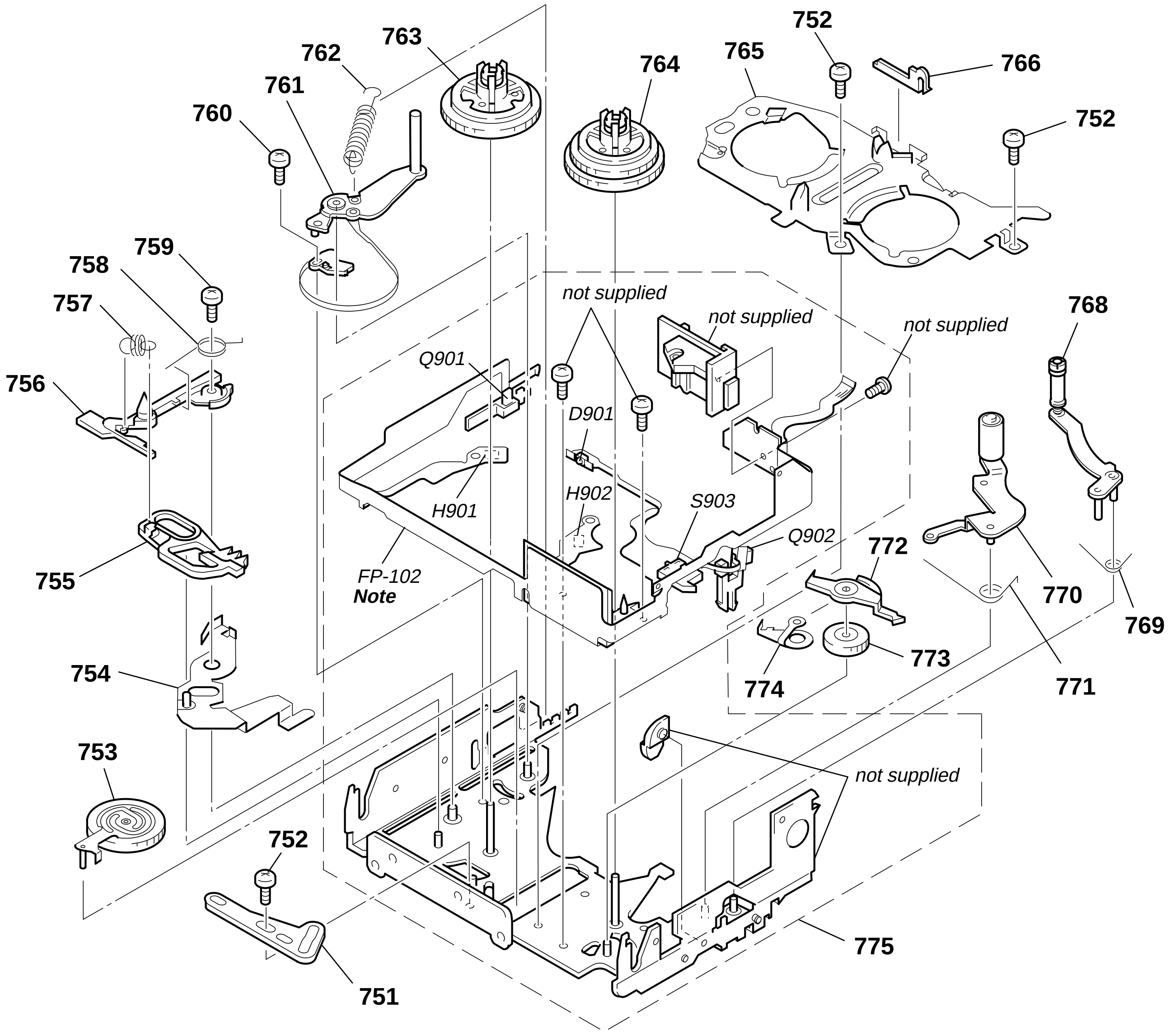
6-1-8. CASSETTE COMPARTMENT AND DRUM BLOCK ASSEMBLY


703
702
704
M901
701
705
709
701
706
LS chassis block assembly (See page 6-9)
Mechanism chassis block assembly (See page 6-10)
707
708
701

Ref. No.	Part No.	Description	Remarks
701	3-703-816-14	SCREW (M1.4)	
702	X-3950-369-2	CASSETTE COMPARTMENT ASSY	
703	3-059-082-01	SPRING, TENSION	
704	3-059-208-01	SPRING (CASSETTE COMPARTMENT T)	
705	X-3950-370-2	DAMPER ASSY	

Ref. No.	Part No.	Description	Remarks
706	3-059-101-01	RETAINER, LS GUIDE	
707	7-624-102-04	STOP RING 1.5, TYPE -E	
708	A-7028-133-A	MD(J100) SUB ASSY (K)	
709	3-703-816-41	SCREW (M1.4X2.5), SPECIAL HEAD	
M901	A-7048-940-A	DRUM BLOCK ASSY (DEH-18A-R)(SERVICE)	

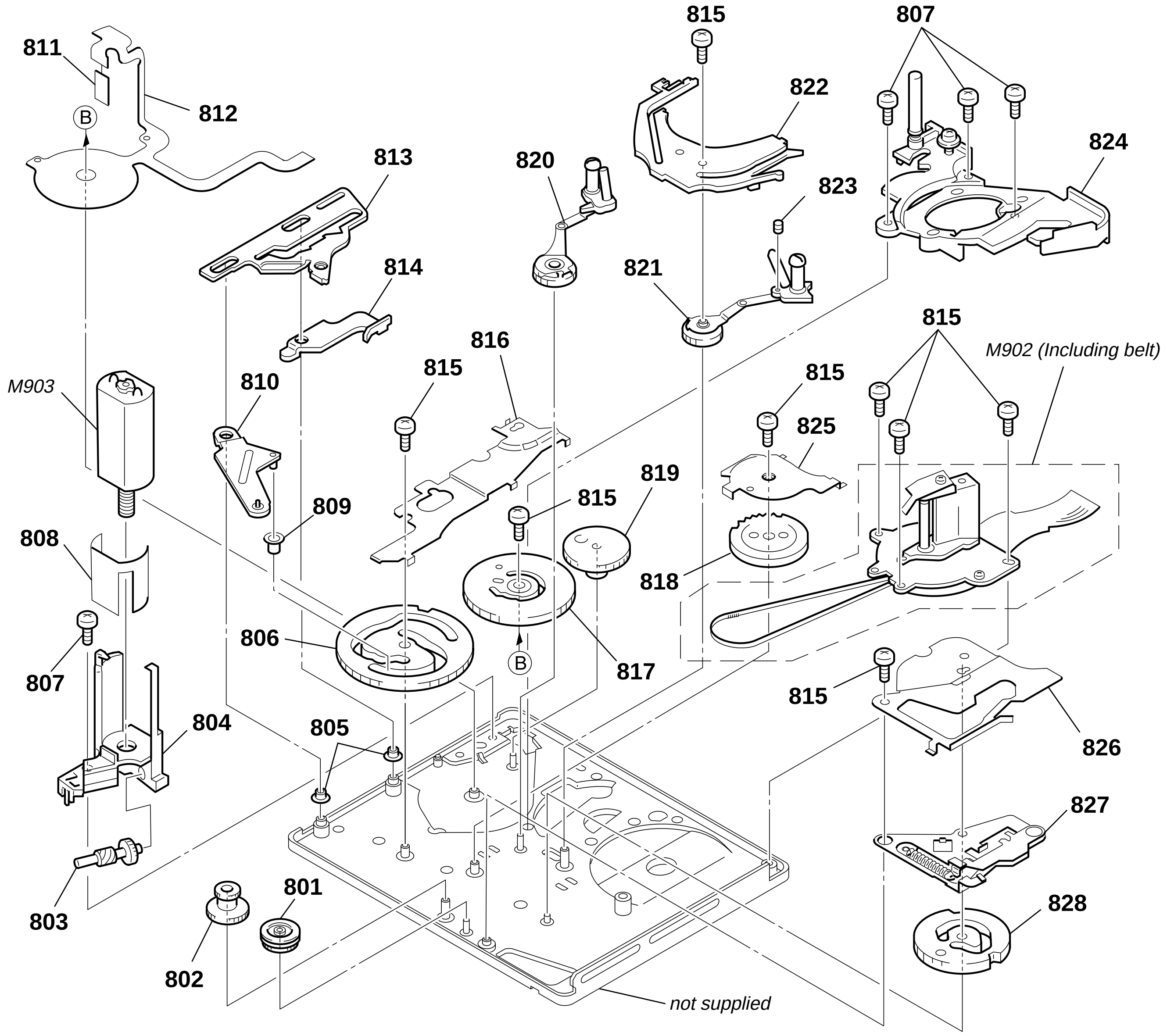
6-1-9. LS CHASSIS ASSEMBLY


763
762
761
760
764
765
752
766
752
759
758
757
756
not supplied
not supplied
not supplied
768
Q901
D901
H902
H901
S903
Q902
772
FP-102
Note
755
770
769
773
771
774
754
753
not supplied
752
775
751

Note : *FP-102 is included in the LS chassis sub assy and is attached to chass by hot-press. Because installation of FP-102 requires a very high accuracy, FP-102 is not supplied as an independent service parts.*

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
751	3-059-173-01	PLATE, LS CAM		766	3-059-093-01	RETAINER, LED	
752	3-059-100-01	SCREW (M1.4X1.4), SPECIAL HEAD		768	A-7094-819-A	TG7 BLOCK ASSY	
753	X-3950-364-1	GEAR ASSY, GOOSENECK		769	3-059-165-01	SPRING (TG7 RETURN), TORSION	
754	X-3950-371-1	ARM ASSY, BRAKE (S) DRIVING		770	X-3950-359-1	ARM ASSY, PINCH	
755	3-059-166-01	BRAKE (S)		771	3-059-161-01	SPRING (PINCH RETURN), TORSION	
756	3-059-146-01	POSITIONING (S), CASSETTE		772	3-059-170-01	BRAKE (T)	
757	3-059-167-01	SPRING (BRAKE S), TENSION COIL		773	3-059-171-01	GEAR (T), BRAKE	
758	3-059-169-01	SPRING (BRAKE S ARM), TORSION		774	3-059-172-01	SPRING (T), BRAKE	
759	3-703-816-14	SCREW (M1.4)		775	A-7094-816-A	LS BLOCK ASSY	
760	3-059-090-01	SCREW (M1.4X2.5), SPECIAL HEAD		D901	8-719-078-71	DIODE LA57A, SO (TAPE LED)	
761	X-3950-358-2	TG1 ASSY		H901	8-719-067-74	ELEMENT, HOLE HW-105A-CDE-T (S REEL)	
762	3-059-156-01	SPRING (TENSION REGULATOR)		H902	8-719-067-74	ELEMENT, HOLE HW-105A-CDE-T (T REEL)	
763	X-3950-365-2	TABLE ASSY, S REEL		Q901	8-729-028-71	TRANSISTOR PN 166, SO (TAPE END)	
764	X-3950-366-1	TABLE ASSY, T REEL		Q902	8-729-028-71	TRANSISTOR PN 166, SO (TAPE TOP)	
765	X-3950-361-1	PLATE ASSY, RETAINER		S903	1-771-326-41	SWITCH, PUSH LEVER (1 KEY) (CC DOWN)	

6-1-10. MECHANISM CHASSIS BLOCK ASSEMBLY


815
807
811
822
812
824
813
820
823
B
814
821
815
816
M902 (Including belt)
M903
815
810
815
825
819
809
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808
818
806
B
807
817
815
804
805
826
827
801
828
803
802
not supplied

Ref. No.	Part No.	Description	Remarks
801	3-059-211-01	GEAR, CONVERSION	
802	3-059-220-01	GEAR, RELAY	
803	3-059-187-01	SHAFT, WORM	
804	3-059-186-03	HOLDER, MOTOR	
805	3-060-002-01	ROLLER, LS GUIDE	
806	3-059-189-01	GEAR (A), CAM	
807	3-703-816-41	SCREW (M1.4X2.5), SPECIAL HEAD	
808	3-059-225-01	SHIELD, MOTOR	
809	3-059-191-01	ROLLER, LS	
810	3-059-190-01	ARM, LS	
811	1-677-049-11	PWB, FP-228 FLEXIBLE	
812	1-677-084-11	PWB, FP-100 FLEXIBLE	
813	3-059-149-01	SLIDER, TG1 CAM	
814	3-059-148-01	ARM, TG1 DRIVING	
815	3-703-816-14	SCREW (M1.4)	
816	3-059-117-01	COVER (A), GEAR	
817	X-3950-367-1	GEAR ASSY, MODE	
818	3-059-139-01	GEAR, GL DRIVING	
819	3-059-188-01	GEAR, DECELERATION	
820	A-7094-818-A	COASTER (S) BLOCK ASSY	
821	A-7094-817-A	COASTER (T) BLOCK ASSY	
822	3-059-126-01	RAIL, GUIDE	
823	3-962-914-01	SCREW (M1.4X2)	
824	A-7094-822-A	DRUM BASE BLOCK ASSY	
825	3-059-118-01	COVER (B), GEAR	
826	3-059-083-01	COVER (C), GEAR	
827	X-3950-368-1	ARM ASSY, PINCH DRIVING	
828	3-059-192-01	GEAR (B), CAM	
M902	8-835-685-01	MOTOR, DC SCD18A/C-NP (INCLUDING BELT)	
M903	A-7094-823-A	MOTOR BLOCK ASSY, L	

6-2. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: μF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: μH
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA... , uPA... , μPA... ,
  uPB... , μPB... , uPC... , μPC... ,
  uPD..., μPD...
- Abbreviation
  AUS: Australian model
  JE: Tourist model
  CND: Canadian model
  CN: Chinese model
  HK: Hong Kong model
  KR: Korea model

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remarks
	A-7074-306-A	CD-252 (NT) BOARD, COMPLETE (TRV20)	
		**********************************	
	A-7074-395-A	CD-252(PAL) BOARD, COMPLETE (TRV20E)	
		***********************************	
		(Ref.No.;5000Series)	
		(IC101 is not included in this complete board.)	
		< CAPACITOR >	
C101	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C102	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C103	1-107-687-11	TANTAL. CHIP 3.3uF 20% 20V	
C104	1-104-851-11	TANTAL. CHIP 10uF 20% 10V	
C105	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C106	1-113-987-11	TANTAL. CHIP 4.7uF 20% 25V	
C107	1-104-851-11	TANTAL. CHIP 10uF 20% 10V	
C108	1-107-826-91	CERAMIC CHIP 0.1uF 10% 16V	
C109	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C110	1-164-937-11	CERAMIC CHIP 0.001uF 10% 16V	
C111	1-164-845-11	CERAMIC CHIP 5PF 0.25PF 16V	
C112	1-164-937-11	CERAMIC CHIP 0.001uF 10% 16V	
C113	1-107-819-11	CERAMIC CHIP 0.022uF 10% 16V	
C114	1-107-820-11	CERAMIC CHIP 0.1uF 16V	
C116	1-107-687-11	TANTAL. CHIP 3.3uF 20% 20V	
C118	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C119	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C120	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C122	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C124	1-117-919-11	TANTAL. CHIP 10uF 20% 6.3V	
C125	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C126	1-117-919-11	TANTAL. CHIP 10uF 20% 6.3V	
C127	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C128	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C129	1-117-919-11	TANTAL. CHIP 10uF 20% 6.3V	
C130	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C131	1-164-870-11	CERAMIC CHIP 68PF 5% 16V	
C132	1-162-966-11	CERAMIC CHIP 0.0022uF 10% 50V	
C151	1-117-919-11	TANTAL. CHIP 10uF 20% 6.3V	
C152	1-125-837-91	CERAMIC CHIP 1uF 10% 6.3V	
		< CONNECTOR >	
CN101	1-784-939-11	CONNECTOR, BOARD TO BOARD 60P	
CN151	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 27P	
CN152	1-766-335-21	CONNECTOR, FFC/FPC 5P	
		< DIODE >	
D101	8-713-103-84	DIODE 1T379-01-T8A	

Ref. No.	Part No.	Description	Remarks
		< FERRITE BEAD >	
FB101	1-414-445-11	FERRITE 0UH	
FB102	1-414-445-11	FERRITE 0UH	
FB103	1-414-445-11	FERRITE 0UH	
FB104	1-414-445-11	FERRITE 0UH	
FB105	1-414-445-11	FERRITE 0UH	
FB106	1-414-445-11	FERRITE 0UH	
FB108	1-414-445-11	FERRITE 0UH	
FB109	1-414-656-11	FERRITE 0UH	
		< IC >	
IC101	A-7031-073-A	CCD BLOCK ASSY	
IC102	8-752-400-37	IC CXD2477R-T4	
IC103	8-759-075-66	IC TA75S01F(TE85R)	
IC104	8-759-638-68	IC AD80017JRURL	
		< COIL >	
L101	1-469-528-91	INDUCTOR 100uH	
L103	1-414-771-91	INDUCTOR CHIP 10uH	
L104	1-414-771-91	INDUCTOR CHIP 10uH	
L105	1-414-771-91	INDUCTOR CHIP 10uH	
L151	1-414-771-91	INDUCTOR CHIP 10uH	
		< TRANSISTOR >	
Q101	8-729-037-74	TRANSISTOR UN9213J-(TX).SO	
Q102	8-729-050-22	TRANSISTOR 2SC4250(T5LSONY1)	
Q103	8-729-041-23	TRANSISTOR NDS356AP	
Q104	8-729-037-74	TRANSISTOR UN9213J-(K8).SO	
		< RESISTOR >	
R102	1-216-808-11	METAL CHIP 82 5% 1/16W	
R104	1-218-990-11	SHORT 0	
R105	1-218-961-11	RES-CHIP 4.7K 5% 1/16W	
R106	1-218-962-11	RES-CHIP 5.6K 5% 1/16W	
R107	1-218-985-11	RES-CHIP 470K 5% 1/16W	
R108	1-218-967-11	RES-CHIP 15K 5% 1/16W	
R109	1-218-990-11	SHORT 0	
R112	1-218-981-11	RES-CHIP 220K 5% 1/16W	
R113	1-218-965-11	RES-CHIP 10K 5% 1/16W	
R114	1-218-989-11	RES-CHIP 1M 5% 1/16W	
R122	1-218-990-11	SHORT 0	
R123	1-218-990-11	SHORT 0	

Be sure to read "Precautions upon replacing CCD imager" on page 4-12 when changing the CCD imager.

Ref. No.	Part No.	Description	Remarks
		< VIBRATOR >	
X101	1-781-632-21	VIBRATOR, CRYSTAL (66MHz)(TRV20)	
X101	1-781-633-21	VIBRATOR, CRYSTAL (54MHz)(TRV20E)	

Ref. No.	Part No.	Description	Remarks
	A-7074-313-A	CK-92(H) BOARD, COMPLETE (TRV11/TRV11E/TRV20)	
		**************************************	
		(Ref.No.;30000Series)	
		< BATTERY >	
BT3201	1-528-724-21	BATTERY, V/L RECHARGEABLE	
		< CAPACITOR >	
C3201	1-104-913-11	TANTAL. CHIP 10uF 20% 16V	
C3203	1-104-919-11	TANTAL. CHIP 10uF 20% 25V	
		< CONNECTOR >	
CN3201	1-779-064-11	PIN, CONNECTOR (PC BOARD) 12P	
CN3202	1-785-283-21	PIN, CONNECTOR (PC BOARD) 14P	
CN3203	1-573-347-11	CONNECTOR, FFC/FPC (ZIF) 7P	
CN3204	1-766-336-21	CONNECTOR, FFC/FPC 6P	
CN3205	1-784-424-21	CONNECTOR, FFC/FPC (ZIF) 51P	
CN3206	1-778-506-21	PIN, CONNECTOR (PC BOARD) 2P	
		< DIODE >	
D3201	8-719-062-16	DIODE 01ZA8.2(TPL3)	
D3202	8-719-062-16	DIODE 01ZA8.2(TPL3)	
D3203	8-719-062-16	DIODE 01ZA8.2(TPL3)	
D3204	8-719-062-16	DIODE 01ZA8.2(TPL3)	
		< RESISTOR >	
R3201	1-216-295-91	SHORT 0	
R3202	1-218-969-11	RES-CHIP 22K 5% 1/16W	
R3203	1-218-969-11	RES-CHIP 22K 5% 1/16W	
R3204	1-218-969-11	RES-CHIP 22K 5% 1/16W	
R3205	1-218-963-11	RES-CHIP 6.8K 5% 1/16W	
R3206	1-218-963-11	RES-CHIP 6.8K 5% 1/16W	
R3207	1-218-963-11	RES-CHIP 6.8K 5% 1/16W	
R3208	1-218-959-11	RES-CHIP 3.3K 5% 1/16W	
R3209	1-218-959-11	RES-CHIP 3.3K 5% 1/16W	
R3210	1-218-959-11	RES-CHIP 3.3K 5% 1/16W	
R3211	1-218-955-11	RES-CHIP 1.5K 5% 1/16W	
R3212	1-218-955-11	RES-CHIP 1.5K 5% 1/16W	
R3213	1-218-955-11	RES-CHIP 1.5K 5% 1/16W	
R3214	1-218-954-11	RES-CHIP 1.2K 5% 1/16W	
R3215	1-218-954-11	RES-CHIP 1.2K 5% 1/16W	
R3216	1-218-954-11	RES-CHIP 1.2K 5% 1/16W	
R3217	1-218-953-11	RES-CHIP 1K 5% 1/16W	
		< SWITCH >	
S3201	1-762-805-21	SWITCH, PUSH (1 KEY) (PANEL CLOSE)	
S3202	1-771-138-61	SWITCH, KEY BOARD (FADER)	
S3203	1-771-138-61	SWITCH, KEY BOARD (MEMORY INDEX)	
S3204	1-771-138-61	SWITCH, KEY BOARD (BACK LIGHT)	
S3205	1-771-138-61	SWITCH, KEY BOARD (MEMORY PLAY)	

Ref. No.	Part No.	Description	Remarks
S3206	1-771-138-61	SWITCH, KEY BOARD (MEMORY +)	
S3207	1-771-138-61	SWITCH, KEY BOARD (DIGITAL EFFECT)	
S3208	1-771-138-61	SWITCH, KEY BOARD (SELF TIMER)	
S3209	1-771-138-61	SWITCH, KEY BOARD (MEMORY -)	
S3210	1-771-138-61	SWITCH, KEY BOARD (TITLE)	
S3211	1-771-138-61	SWITCH, KEY BOARD (END SEARCH)	
S3212	1-771-138-61	SWITCH, KEY BOARD (MEMORY MIX)	
S3213	1-771-138-61	SWITCH, KEY BOARD (PB ZOOM)	
S3214	1-771-138-61	SWITCH, KEY BOARD (DATA CODE)	
S3215	1-771-138-61	SWITCH, KEY BOARD (MEMORY DELETE)	
S3216	1-771-138-61	SWITCH, KEY BOARD (MENU)	
S3217	1-771-138-61	SWITCH, KEY BOARD (DISPLAY)	
S3218	1-771-138-61	SWITCH, KEY BOARD (RESET)	

Ref. No.	Part No.	Description	Remarks
	A-7074-396-A	CK-94(H) BOARD, COMPLETE (TRV20E)	
		********************************	
	A-7074-393-A	CK-94(L) BOARD, COMPLETE (TRV6/TRV6E)	
		**************************************	
		(Ref.No.;30000Series)	
		< BATTERY >	
BT3201	1-528-724-21	BATTERY, V/L RECHARGEABLE	
		< CAPACITOR >	
C3201	1-104-913-11	TANTAL. CHIP 10uF 20% 16V	
C3203	1-104-919-11	TANTAL. CHIP 10uF 20% 25V	(TRV20E)
		< CONNECTOR >	
CN3201	1-779-064-11	PIN, CONNECTOR (PC BOARD) 12P	
CN3202	1-785-283-21	PIN, CONNECTOR (PC BOARD) 14P	
CN3203	1-573-347-11	CONNECTOR, FFC/FPC (ZIF) 7P	
CN3204	1-766-336-21	CONNECTOR, FFC/FPC 6P	
CN3205	1-784-424-21	CONNECTOR, FFC/FPC (ZIF) 51P	
CN3206	1-778-506-21	PIN, CONNECTOR (PC BOARD) 2P	
		< DIODE >	
D3201	8-719-062-16	DIODE 01ZA8.2(TPL3)	
D3202	8-719-062-16	DIODE 01ZA8.2(TPL3)	
D3203	8-719-062-16	DIODE 01ZA8.2(TPL3)	
D3204	8-719-062-16	DIODE 01ZA8.2(TPL3)	
		< RESISTOR >	
R3201	1-216-295-91	SHORT 0	
R3202	1-218-969-11	RES-CHIP 22K 5% 1/16W	
R3203	1-218-969-11	RES-CHIP 22K 5% 1/16W	
R3204	1-218-969-11	RES-CHIP 22K 5% 1/16W	
R3205	1-218-963-11	RES-CHIP 6.8K 5% 1/16W	
R3206	1-218-963-11	RES-CHIP 6.8K 5% 1/16W	
R3207	1-218-963-11	RES-CHIP 6.8K 5% 1/16W	
R3208	1-218-959-11	RES-CHIP 3.3K 5% 1/16W	
R3209	1-218-959-11	RES-CHIP 3.3K 5% 1/16W	
R3210	1-218-959-11	RES-CHIP 3.3K 5% 1/16W	
R3211	1-218-955-11	RES-CHIP 1.5K 5% 1/16W	
R3212	1-218-955-11	RES-CHIP 1.5K 5% 1/16W	
R3213	1-218-955-11	RES-CHIP 1.5K 5% 1/16W	
R3214	1-218-954-11	RES-CHIP 1.2K 5% 1/16W	
R3215	1-218-954-11	RES-CHIP 1.2K 5% 1/16W	

Ref. No.	Part No.	Description			Remarks
R3216	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R3217	1-218-953-11	RES-CHIP	1K	5%	1/16W

< SWITCH >

Ref. No.	Part No.	Description	Remarks
S3201	1-762-805-21	SWITCH, PUSH (1 KEY) (PANEL CLOSE)	
S3202	1-771-138-61	SWITCH, KEY BOARD (FADER)	
S3203	1-771-138-61	SWITCH, KEY BOARD (MEMORY INDEX)	
			(TRV20E)
S3204	1-771-138-61	SWITCH, KEY BOARD (BACK LIGHT)	
S3205	1-771-138-61	SWITCH, KEY BOARD (MEMORY PLAY)	
			(TRV20E)
S3206	1-771-138-61	SWITCH, KEY BOARD (MEMORY +) (TRV20E)	
S3207	1-771-138-61	SWITCH, KEY BOARD (DIGITAL EFFECT)	
S3208	1-771-138-61	SWITCH, KEY BOARD (SELF TIMER)	
S3209	1-771-138-61	SWITCH, KEY BOARD (MEMORY -) (TRV20E)	
S3210	1-771-138-61	SWITCH, KEY BOARD (TITLE)	
S3211	1-771-138-61	SWITCH, KEY BOARD (END SEARCH)	
S3212	1-771-138-61	SWITCH, KEY BOARD (MEMORY MIX)(TRV20E)	
S3213	1-771-138-61	SWITCH, KEY BOARD (PB ZOOM)	
S3214	1-771-138-61	SWITCH, KEY BOARD (DATA CODE)	
S3215	1-771-138-61	SWITCH, KEY BOARD (MEMORY DELETE)	
			(TRV20E)
S3216	1-771-138-61	SWITCH, KEY BOARD (MENU)	
S3217	1-771-138-61	SWITCH, KEY BOARD (DISPLAY)	
S3218	1-771-138-61	SWITCH, KEY BOARD (RESET)	

Ref. No.	Part No.	Description	Remarks
	A-7074-307-A	DD-137(H) BOARD, COMPLETE	
			(TRV20/TRV20E)
		**************************	
	A-7074-392-A	DD-137(L) BOARD, COMPLETE (TRV6/TRV6E)	
		**************************	
	A-7074-365-A	DD-137(M) BOARD, COMPLETE	
			(TRV11/TRV11E)
		**************************	
			(Ref.No.;10000Series)

< CAPACITOR >

Ref. No.	Part No.	Description			Remarks
C1601	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C1602	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1603	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C1604	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C1605	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C1607	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1608	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C1609	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C1610	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C1611	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
					(TRV11/TRV11E/TRV20/TRV20E)
C1612	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C1613	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
					(TRV11/TRV11E/TRV20/TRV20E)
C1614	1-119-751-11	TANTAL. CHIP	22uF	20%	16V
C1615	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C1616	1-119-751-11	TANTAL. CHIP	22uF	20%	16V
C1617	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C1618	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C1619	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C1620	1-164-933-11	CERAMIC CHIP	220PF	10%	16V
C1621	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C1622	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C1623	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C1624	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C1625	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C1626	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C1627	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C1628	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
					(TRV11/TRV11E/TRV20/TRV20E)
C1629	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C1630	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C1631	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C1632	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C1633	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C1634	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C1635	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
					(TRV11/TRV11E/TRV20/TRV20E)
C1636	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C1637	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C1638	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1639	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1640	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C1641	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C1642	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
					(TRV11/TRV11E/TRV20/TRV20E)
C1643	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C1644	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C1645	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C1646	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C1647	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C1648	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C1649	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C1650	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C1651	1-131-862-91	TANTAL. CHIP	47uF	20%	4V
					(TRV11/TRV11E)
C1651	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
					(TRV6/TRV6E/TRV20/TRV20E)
C1652	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
					(TRV11/TRV11E/TRV20/TRV20E)
C1653	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1654	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
					(TRV6/TRV6E/TRV11/TRV11E)
C1654	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
					(TRV20/TRV20E)
C1655	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C1656	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1657	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1658	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
					(TRV11/TRV11E/TRV20/TRV20E)
C1659	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C1660	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1661	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1662	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1663	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1664	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1666	1-113-985-11	TANTAL. CHIP	10uF	20%	20V
C1667	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C1668	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C1669	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
					(TRV6/TRV6E/TRV11/TRV11E)
C1672	1-113-987-11	TANTAL. CHIP	4.7uF	20%	25V

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Ref. No.	Part No.	Description	Remarks
C1673	1-104-851-11	TANTAL. CHIP 10uF 20%	10V
C1674	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
		< CONNECTOR >	
* CN1601	1-580-056-21	PIN, CONNECTOR (SMD) 3P	
* CN1602	1-580-056-21	PIN, CONNECTOR (SMD) 3P	
CN1603	1-779-520-11	CONNECTOR, BOARD TO BOARD 80P	
CN1604	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 27P	
		< DIODE >	
D1601	8-719-158-49	DIODE MA8120-TX	
D1602	8-719-062-16	DIODE 01ZA8.2(TPL3)	
D1604	8-719-056-48	DIODE 1SS388(TPL3)	
D1606	8-719-058-24	DIODE RB501V-40TE-17	
D1607	8-719-058-24	DIODE RB501V-40TE-17	
D1608	8-719-058-24	DIODE RB501V-40TE-17	
D1609	8-719-056-48	DIODE 1SS388(TPL3)	
D1610	8-719-056-48	DIODE 1SS388(TPL3)	
D1611	8-719-027-77	DIODE MA796-TX	
D1612	8-719-056-48	DIODE 1SS388(TPL3) (TRV20/TRV20E)	
D1613	8-719-056-48	DIODE 1SS388(TPL3)	
D1614	8-719-056-23	DIODE MA2S111-(K8).SO	
D1615	8-719-075-12	DIODE MA3XD21001S0	
D1616	8-719-056-23	DIODE MA2S111-(K8).SO	
		< FUSE >	
⚠F1601	1-576-406-21	FUSE, MICRO (1608) (1.4A 32V)	
⚠F1602	1-576-406-21	FUSE, MICRO (1608) (1.4A 32V)	
⚠F1603	1-576-406-21	FUSE, MICRO (1608) (1.4A 32V)	
⚠F1604	1-576-406-21	FUSE, MICRO (1608) (1.4A 32V)	
⚠F1605	1-576-406-21	FUSE, MICRO (1608) (1.4A 3.2V)	(TRV11/TRV11E/TRV20/TRV20E)
⚠F1606	1-576-406-21	FUSE, MICRO (1608) (1.4A 32V)	
		< IC >	
IC1601	8-759-678-75	IC MB4488PFV-G-BND-ER-F	
IC1602	8-759-075-66	IC TA75S01F(TE85R)	
		< COIL >	
L1601	1-416-669-11	INDUCTOR 22uH	
L1602	1-416-670-11	INDUCTOR 33uH	
L1603	1-416-669-11	INDUCTOR 22uH	
L1604	1-416-669-11	INDUCTOR 22uH	(TRV11/TRV11E/TRV20/TRV20E)
L1605	1-416-669-11	INDUCTOR 22uH	
L1606	1-416-669-11	INDUCTOR 22uH	
L1607	1-414-392-21	INDUCTOR 1uH	(TRV11/TRV11E/TRV20/TRV20E)
L1608	1-414-392-21	INDUCTOR 1uH	
L1609	1-412-056-11	INDUCTOR 4.7uH	
L1610	1-414-392-21	INDUCTOR 1uH	
L1611	1-414-392-21	INDUCTOR 1uH	
L1612	1-414-770-91	INDUCTOR CHIP 4.7uH	
L1613	1-414-770-91	INDUCTOR CHIP 4.7uH	
L1614	1-469-522-91	INDUCTOR 1uH	
L1615	1-469-522-91	INDUCTOR 1uH	

Ref. No.	Part No.	Description	Remarks
L1616	1-469-522-91	INDUCTOR 1uH	
L1617	1-414-400-11	INDUCTOR 22uH	
L1618	1-469-058-11	INDUCTOR CHIP 22uH	
L1619	1-414-770-91	INDUCTOR CHIP 4.7uH	(TRV11/TRV11E/TRV20/TRV20E)
L1624	1-414-770-91	INDUCTOR CHIP 4.7uH (TRV20/TRV20E)	
		< LINE FILTER >	
LF1601	1-411-957-11	FILTER, COMMON MODE	
		< TRANSISTOR >	
Q1601	8-729-047-68	TRANSISTOR SSM3K03FE(TPL3)	
Q1602	8-729-046-77	TRANSISTOR SI4963DY-T1	
Q1603	8-729-804-41	TRANSISTOR 2SB1122-ST-TD	
Q1604	8-729-037-74	TRANSISTOR UN9213J-(K8).SO	
Q1605	8-729-050-24	TRANSISTOR MCH6202-TL	
Q1606	8-729-037-53	TRANSISTOR 2SB1462J-QR(K8).SO	
Q1607	8-729-037-74	TRANSISTOR UN9213J-(K8).SO	
Q1608	8-729-050-23	TRANSISTOR MCH6103-TL	
Q1609	8-729-046-98	TRANSISTOR CPH6702-TL	
Q1610	8-729-046-98	TRANSISTOR CPH6702-TL	
Q1611	8-729-046-98	TRANSISTOR CPH6702-TL	
Q1612	8-729-046-98	TRANSISTOR CPH6702-TL	(TRV11/TRV11E/TRV20/TRV20E)
Q1613	8-729-046-98	TRANSISTOR CPH6702-TL	
Q1614	8-729-046-98	TRANSISTOR CPH6702-TL	
Q1615	8-729-037-52	TRANSISTOR 2SD2216J-QR(K8).SO	
Q1616	8-729-017-61	TRANSISTOR 2SB1581-T1	
Q1617	8-729-037-53	TRANSISTOR 2SB1462J-QR(K8).SO	
Q1618	8-729-044-58	TRANSISTOR SI2304DS-T1	
Q1619	8-729-044-58	TRANSISTOR SI2304DS-T1	
Q1620	8-729-044-58	TRANSISTOR SI2304DS-T1	
Q1621	8-729-044-58	TRANSISTOR SI2304DS-T1	(TRV11/TRV11E/TRV20/TRV20E)
Q1622	8-729-044-58	TRANSISTOR SI2304DS-T1	
Q1623	8-729-044-58	TRANSISTOR SI2304DS-T1	
Q1624	8-729-037-52	TRANSISTOR 2SD2216J-QR(K8).SO	
Q1625	8-729-037-74	TRANSISTOR UN9213J-(K8).SO	
Q1626	8-729-042-56	TRANSISTOR MGSF3455VT1	
Q1627	8-729-049-91	TRANSISTOR 2SA2018H-T2L	
Q1628	8-729-037-52	TRANSISTOR 2SD2216J-QR(K8).SO	
Q1629	8-729-037-74	TRANSISTOR UN9213J-(K8).SO	
Q1632	8-729-037-53	TRANSISTOR 2SB1462J-QR(K8).SO	
Q1635	8-729-037-53	TRANSISTOR 2SB1462J-QR(K8).SO	
Q1637	8-729-037-52	TRANSISTOR 2SD2216J-QR(K8).SO	
Q1639	8-729-037-52	TRANSISTOR 2SD2216J-QR(K8).SO	
Q1641	8-729-037-53	TRANSISTOR 2SB1462J-QR(K8).SO	
Q1643	8-729-037-53	TRANSISTOR 2SB1462J-QR(K8).SO	
Q1646	8-729-037-74	TRANSISTOR UN9213J-(K8).SO	(TRV20/TRV20E)
Q1647	8-729-037-52	TRANSISTOR 2SD2216J-QR(K8).SO	(TRV6/TRV6E/TRV11/TRV11E)
Q1648	8-729-037-74	TRANSISTOR UN9213J-(K8).SO	(TRV20/TRV20E)
Q1649	8-729-037-52	TRANSISTOR 2SD2216J-QR(K8).SO	(TRV6/TRV6E/TRV11/TRV11E)
Q1650	8-729-037-53	TRANSISTOR 2SB1462J-QR(K8).SO	(TRV6/TRV6E/TRV11/TRV11E)

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description				Remarks
Q1653	8-729-037-52	TRANSISTOR	2SD2216J-QR(K8).SO			(TRV6/TRV6E/TRV11/TRV11E)
		< RESISTOR >				
R1601	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R1602	1-218-985-11	RES-CHIP	470K	5%	1/16W	
R1603	1-218-989-11	RES-CHIP	1M	5%	1/16W	
R1604	1-216-150-91	RES-CHIP	10	5%	1/8W	
R1605	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R1606	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R1609	1-218-990-11	SHORT	0			(TRV11/TRV11E/TRV20/TRV20E)
R1610	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R1611	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R1612	1-208-715-11	METAL CHIP	22K	0.5%	1/16W	
R1613	1-208-927-11	METAL CHIP	47K	0.5%	1/16W	(TRV11/TRV11E/TRV20/TRV20E)
R1614	1-218-969-11	RES-CHIP	22K	5%	1/16W	(TRV11/TRV11E/TRV20/TRV20E)
R1615	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R1616	1-208-707-11	METAL CHIP	10K	0.5%	1/16W	
R1617	1-208-931-11	METAL CHIP	68K	0.5%	1/16W	(TRV11/TRV11E/TRV20/TRV20E)
R1618	1-218-970-11	RES-CHIP	27K	5%	1/16W	
R1619	1-218-849-11	METAL CHIP	3.3K	0.5%	1/16W	(TRV11/TRV11E/TRV20/TRV20E)
R1620	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R1621	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R1622	1-208-927-11	METAL CHIP	47K	0.5%	1/16W	
R1623	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R1624	1-208-927-11	METAL CHIP	47K	0.5%	1/16W	
R1625	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R1626	1-218-971-11	RES-CHIP	33K	5%	1/16W	
R1627	1-208-715-11	METAL CHIP	22K	0.5%	1/16W	
R1628	1-218-974-11	METAL CHIP	56K	0.5%	1/16W	
R1629	1-218-974-11	METAL CHIP	56K	0.5%	1/16W	
R1630	1-208-715-11	METAL CHIP	22K	0.5%	1/16W	
R1631	1-208-933-11	METAL CHIP	82K	0.5%	1/16W	(TRV6/TRV6E/TRV11/TRV11E)
R1631	1-208-935-11	METAL CHIP	100K	0.5%	1/16W	(TRV20/TRV20E)
R1632	1-218-945-11	RES-CHIP	220	5%	1/16W	
R1633	1-218-849-11	METAL CHIP	3.3K	0.5%	1/16W	
R1634	1-208-697-11	METAL CHIP	3.9K	0.5%	1/16W	
R1635	1-208-697-11	METAL CHIP	3.9K	0.5%	1/16W	
R1636	1-208-707-11	METAL CHIP	10K	0.5%	1/16W	(TRV20/TRV20E)
R1636	1-208-711-11	METAL CHIP	15K	0.5%	1/16W	(TRV6/TRV6E/TRV11/TRV11E)
R1637	1-218-941-11	RES-CHIP	100	5%	1/16W	(TRV11/TRV11E/TRV20/TRV20E)
R1638	1-218-941-11	RES-CHIP	100	5%	1/16W	
R1639	1-218-941-11	RES-CHIP	100	5%	1/16W	
R1640	1-218-941-11	RES-CHIP	100	5%	1/16W	
R1641	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R1642	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R1643	1-218-941-11	RES-CHIP	100	5%	1/16W	
R1644	1-218-941-11	RES-CHIP	100	5%	1/16W	
R1645	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R1646	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R1647	1-208-715-11	METAL CHIP	22K	0.5%	1/16W	
R1648	1-208-719-11	METAL CHIP	33K	0.5%	1/16W	
R1649	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R1650	1-218-989-11	RES-CHIP	1M	5%	1/16W	
R1651	1-218-990-11	SHORT	0			(TRV6/TRV6E/TRV11/TRV11E)
R1652	1-218-977-11	RES-CHIP	100K	5%	1/16W	
R1653	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R1654	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R1655	1-218-949-11	RES-CHIP	470	5%	1/16W	
R1656	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R1657	1-208-719-11	METAL CHIP	33K	0.5%	1/16W	
R1658	1-208-936-81	METAL CHIP	110K	0.5%	1/16W	
R1661	1-218-977-11	RES-CHIP	100K	5%	1/16W	
R1662	1-218-977-11	RES-CHIP	100K	5%	1/16W	
R1664	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R1666	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R1668	1-218-990-11	SHORT	0			(TRV6/TRV6E/TRV11/TRV11E)
R1669	1-218-990-11	SHORT	0			(TRV20/TRV20E)
R1672	1-208-927-11	METAL CHIP	47K	0.5%	1/16W	
R1673	1-218-982-11	METAL CHIP	270K	0.5%	1/16W	
R1674	1-208-935-11	METAL CHIP	100K	0.5%	1/16W	
R1675	1-208-935-11	METAL CHIP	100K	0.5%	1/16W	
R1676	1-208-707-11	METAL CHIP	10K	0.5%	1/16W	(TRV20/TRV20E)
R1676	1-208-715-11	METAL CHIP	22K	0.5%	1/16W	(TRV6/TRV6E/TRV11/TRV11E)
R1677	1-208-943-11	METAL CHIP	220K	0.5%	1/16W	
R1678	1-218-849-11	METAL CHIP	1.2K	0.5%	1/16W	
R1679	1-218-990-11	SHORT	0			
R1680	1-218-973-11	RES-CHIP	47K	5%	1/16W	(TRV6/TRV6E/TRV11/TRV11E)
R1682	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R1683	1-218-952-11	RES-CHIP	820	5%	1/16W	(TRV20/TRV20E)
R1684	1-218-977-11	RES-CHIP	100K	5%	1/16W	(TRV6/TRV6E/TRV11/TRV11E)
R1685	1-218-969-11	RES-CHIP	22K	5%	1/16W	(TRV20/TRV20E)
R1686	1-218-969-11	RES-CHIP	22K	5%	1/16W	(TRV6/TRV6E/TRV11/TRV11E)
R1687	1-218-952-11	RES-CHIP	820	5%	1/16W	(TRV20/TRV20E)
R1688	1-218-952-11	RES-CHIP	820	5%	1/16W	(TRV20/TRV20E)
R1689	1-208-713-11	METAL CHIP	18K	0.5%	1/16W	(TRV6/TRV6E/TRV11/TRV11E)
R1690	1-208-935-11	METAL CHIP	100K	0.5%	1/16W	(TRV6/TRV6E/TRV11/TRV11E)
R1691	1-208-927-11	METAL CHIP	47K	0.5%	1/16W	(TRV6/TRV6E/TRV11/TRV11E)
R1692	1-218-952-11	RES-CHIP	820	5%	1/16W	(TRV20/TRV20E)
R1693	1-217-671-11	METAL CHIP	1	5%	1/10W	
R1694	1-217-671-11	METAL CHIP	1	5%	1/10W	
R1695	1-218-982-11	RES-CHIP	270K	5%	1/16W	
R1696	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R1697	1-218-969-11	RES-CHIP	22K	5%	1/16W	

Ref. No.	Part No.	Description			Remarks
R1698	1-218-969-11	RES-CHIP	22K	5%	1/16W
R1699	1-218-969-11	RES-CHIP	22K	5%	1/16W
R1700	1-218-969-11	RES-CHIP	22K	5%	1/16W
R1701	1-218-969-11	RES-CHIP	22K	5%	1/16W
R1702	1-218-953-11	RES-CHIP	1K	5%	1/16W
		< TRANSFORMER >			
T1601	1-435-456-21	TRANSFORMER, DC-DC CONVERTER			
T1602	1-435-456-21	TRANSFORMER, DC-DC CONVERTER			

FP-102 FLEXIBLE (Not supplied)
****
(Ref.No.;6000Series)

Ref. No.	Part No.	Description			Remarks
		< DIODE >			
D901	8-719-078-71	DIODE LN57A.SO			
		< HOLE ELEMENT >			
H901	8-719-067-74	DIODE HW-105A-CDE-T			
H902	8-719-067-74	DIODE HW-105A-CDE-T			
		< TRANSISTOR >			
Q901	8-729-028-71	TRANSISTOR	PN166.SO		
Q902	8-729-028-71	TRANSISTOR	PN166.SO		
		< SWITCH >			
S903	1-771-326-41	SWITCH, PUSH (1KEY) (CC DOWN)			

1-677-566-21 FP-219 FLEXIBLE, COMPLETE
(TRV6/TRV6E/TRV11/TRV11E)
****
(Ref.No.;30000Series)
(All parts excluding CCD are already mounted of the FP-219 FLEXIBLE, COMPLETE.)
(IC3000 is not included in this complete board.)

Ref. No.	Part No.	Description			Remarks
		< IC >			
IC3000	A-7031-011-A	CCD BLOCK ASSY (TRV6/TRV11)			
IC3000	A-7031-012-A	CCD BLOCK ASSY (TRV6E/TRV11E)			

A-7074-309-A JK-188 BOARD, COMPLETE
****
(Ref.No.;10000Series)

Ref. No.	Part No.	Description			Remarks
		< CAPACITOR >			
C3053	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C3054	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C3055	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3056	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3057	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C3058	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C3059	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C3060	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C3061	1-125-817-11	CERAMIC CHIP	10uF	10%	6.3V
C3062	1-125-817-11	CERAMIC CHIP	10uF	10%	6.3V
C3063	1-125-817-11	CERAMIC CHIP	10uF	10%	6.3V
C3064	1-125-817-11	CERAMIC CHIP	10uF	10%	6.3V
C3065	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C3066	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C3067	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< CONNECTOR >			
CN3001	1-784-939-11	CONNECTOR, BOARD TO BOARD 60P			
		< DIODE >			
D3001	8-719-056-61	DIODE 015AZ8.2-TPL3			
		< FERRITE BEAD >			
FB3004	1-500-444-11	FERRITE	0UH		
FB3005	1-500-444-11	FERRITE	0UH		
FB3007	1-500-444-11	FERRITE	0UH		
FB3008	1-500-444-11	FERRITE	0UH		
		< IC >			
IC3051	8-759-489-19	IC uPC6756GR-8JG-E2			
		< JACK >			
J3001	1-778-518-11	CONNECTOR, EXTERNAL (S VIDEO)			
J3002	1-695-514-21	JACK (SMALL TYPE) 1P (🎧)			
J3003	1-778-040-11	JACK, SMALL TYPE (AUDIO/VIDEO)			
J3004	1-794-276-11	CONNECTOR, SQUARE TYPE 4P (DV IN/OUT)			
		< COIL >			
L3052	1-414-771-91	INDUCTOR CHIP	10uH		
		< RESISTOR >			
R3001	1-216-864-11	METAL CHIP	0	5%	1/16W
R3002	1-216-864-11	METAL CHIP	0	5%	1/16W
R3003	1-216-864-11	METAL CHIP	0	5%	1/16W
R3004	1-216-864-11	METAL CHIP	0	5%	1/16W
R3005	1-216-864-11	METAL CHIP	0	5%	1/16W
R3051	1-218-969-11	RES-CHIP	22K	5%	1/16W
R3052	1-218-969-11	RES-CHIP	22K	5%	1/16W
R3053	1-218-969-11	RES-CHIP	22K	5%	1/16W
R3054	1-218-969-11	RES-CHIP	22K	5%	1/16W
R3055	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3056	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3057	1-218-989-11	RES-CHIP	1M	5%	1/16W
R3058	1-218-967-11	RES-CHIP	15K	5%	1/16W
R3059	1-218-989-11	RES-CHIP	1M	5%	1/16W
R3060	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3061	1-216-295-91	SHORT	0		
		< SENSOR >			
SE3051	1-803-042-31	SENSOR, ANGULAR VELOCITY (PITCH)			
SE3052	1-803-042-41	SENSOR, ANGULAR VELOCITY (YAW)			
		< VARISTOR >			
VDR001	1-801-862-11	VARISTOR, CHIP			
VDR002	1-801-862-11	VARISTOR, CHIP			
VDR003	1-801-862-11	VARISTOR, CHIP			
VDR004	1-801-862-11	VARISTOR, CHIP			
VDR005	1-803-742-21	VARISTOR, CHIP			

Be sure to read “Precautions upon replacing CCD imager” on page 4-14 when changing the CCD imager.

Ref. No.	Part No.	Description			Remarks
VDR006	1-803-742-21	VARISTOR, CHIP			
VDR007	1-803-742-21	VARISTOR, CHIP			
	A-7074-310-A	LB-64 BOARD, COMPLETE **********************			
					(Ref.No.;10000Series)
		< CAPACITOR >			
C2201	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2202	1-113-682-11	TANTAL. CHIP	33uF	20%	10V
C2203	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
⚠C2204	1-115-464-91	CERAMIC CHIP	0.0022uF	10%	630V
		< CONNECTOR >			
CN2201	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 27P			
CN2201	1-784-421-11	CONNECTOR, FPC (ZIF) 27P			
CN2202	1-691-380-21	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC2201	8-759-485-79	IC TC7SET08FU(TE85R)			
		< COIL >			
L2201	1-412-031-11	INDUCTOR CHIP	47uH		
L2202	1-469-525-91	INDUCTOR	10uH		
		< FLUORESCENT INDICATOR >			
⚠ND2201	1-517-933-31	FLUORESCENT TUBE (0.44)			
		< TRANSISTOR >			
⚠Q2201	8-729-039-24	TRANSISTOR	FX216-TL1		
		< RESISTOR >			
R2203	1-216-808-11	METAL CHIP	82	5%	1/16W
R2205	1-218-965-11	RES-CHIP	10K	5%	1/16W
		< TRANSFORMER >			
⚠T2201	1-435-225-21	TRANSFORMER, INVERTER			
	A-7074-308-A	MA-385 BOARD, COMPLETE ************************			
					(Ref.No.;10000Series)
*	3-061-599-01	HOLDER (3015), LED			
		< CAPACITOR >			
C2005	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C2006	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C2007	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C2008	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2009	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C2010	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C2011	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C2012	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C2013	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C2014	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C2015	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C2017	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C2018	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C2020	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2021	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2022	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2023	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C2024	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2025	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C2026	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C2027	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C2028	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C2029	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C2031	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C2032	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C2036	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2037	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C2038	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C2039	1-125-841-91	TANTAL. CHIP	22uF	20%	4V
C2041	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C2042	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C2043	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C2044	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2045	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2046	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2047	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2071	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C2072	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C2073	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C2091	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
		< CONNECTOR >			
CN2001	1-778-507-21	PIN, CONNECTOR (PC BOARD) 4P			
CN2051	1-778-793-21	CONNECTOR, FFC/FPC (ZIF) 5P			
CN2071	1-764-534-21	CONNECTOR, FFC/FPC (ZIF) 28P			
		< DIODE >			
D2001	8-719-062-16	DIODE 01ZA8.2(TPL3)			
D2002	8-719-062-16	DIODE 01ZA8.2(TPL3)			
D2061	8-719-061-82	DIODE TLSU1002(TPX1,SONY)			
D2062	8-719-062-16	DIODE 01ZA8.2(TPL3)			
D2063	8-719-072-91	DIODE MAZJ200D0LS0			
D2071	8-719-060-65	DIODE DAC3825			
D2072	8-719-078-23	DIODE DCR2815			
D2091	8-719-056-23	DIODE MA2S111-(K8).SO			
		< FERRITE BEAD >			
FB2001	1-500-444-11	FERRITE	0UH		
FB2002	1-500-444-11	FERRITE	0UH		
FB2003	1-500-444-11	FERRITE	0UH		
FB2061	1-216-864-11	METAL CHIP	0	5%	1/16W (Note)
FB2062	1-500-444-11	FERRITE	0UH		
FB2063	1-500-444-11	FERRITE	0UH		
FB2064	1-500-444-11	FERRITE	0UH		

Note : Resistor is mounted to the location where FB2061 is printed.

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remarks
		< IC >			
IC2002	8-759-638-50	IC AN2901FHQ-EB			
IC2091	8-749-013-13	IC RS-70-TU			
		< JACK >			
J2001	1-691-737-11	JACK (SMALL TYPE) (MIC)			
J2002	1-793-995-11	JACK, SUPER SMALL TYPE (DIGITAL I/O)			(LANC)
		< COIL >			
L2001	1-414-754-11	INDUCTOR	10uH		
		< TRANSISTOR >			
Q2071	8-729-140-75	TRANSISTOR	2SD999-T1-CLCK		
Q2072	8-729-141-48	TRANSISTOR	2SB624-T1BV4		
Q2073	8-729-037-72	TRANSISTOR	UN9211J-(TX).SO		
Q2074	8-729-037-53	TRANSISTOR	2SB1462J-QR(TX).SO		
		< RESISTOR >			
R2007	1-218-968-11	RES-CHIP	18K	5%	1/16W
R2008	1-218-971-11	RES-CHIP	33K	5%	1/16W
R2009	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R2010	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2011	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R2012	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R2013	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R2014	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R2015	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2016	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2017	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R2018	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R2019	1-208-910-11	RES-CHIP	9.1K	5%	1/16W
R2020	1-218-969-11	RES-CHIP	22K	5%	1/16W
R2021	1-208-910-11	RES-CHIP	9.1K	5%	1/16W
R2022	1-218-969-11	RES-CHIP	22K	5%	1/16W
R2023	1-218-970-11	RES-CHIP	27K	5%	1/16W
R2024	1-218-990-11	SHORT	0		
R2025	1-218-990-11	SHORT	0		
R2026	1-218-970-11	RES-CHIP	27K	5%	1/16W
R2027	1-218-969-11	RES-CHIP	22K	5%	1/16W
R2028	1-218-969-11	RES-CHIP	22K	5%	1/16W
R2031	1-218-971-11	RES-CHIP	33K	5%	1/16W
R2032	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R2033	1-218-971-11	RES-CHIP	33K	5%	1/16W
R2034	1-218-968-11	RES-CHIP	18K	5%	1/16W
R2035	1-218-990-11	SHORT	0		
R2036	1-208-912-11	METAL CHIP	11K	0.5%	1/16W
R2037	1-208-912-11	METAL CHIP	11K	0.5%	1/16W
R2038	1-208-701-11	METAL CHIP	5.6K	0.5%	1/16W
R2051	1-218-945-11	RES-CHIP	220	5%	1/16W
R2052	1-218-945-11	RES-CHIP	220	5%	1/16W
R2062	1-218-966-11	RES-CHIP	12K	5%	1/16W
R2063	1-218-969-11	RES-CHIP	22K	5%	1/16W
R2064	1-218-952-11	RES-CHIP	820	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R2065	1-218-949-11	RES-CHIP	470	5%	1/16W
R2071	1-218-932-11	RES-CHIP	18	5%	1/16W
R2072	1-216-001-00	METAL CHIP	10	5%	1/10W
R2073	1-218-973-11	RES-CHIP	47K	5%	1/16W
R2074	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2075	1-216-795-11	RES-CHIP	6.8	5%	1/16W
R2091	1-218-937-11	RES-CHIP	47	5%	1/16W
		< SWITCH >			
S2061	1-762-651-11	SWITCH, SLIDE			
		< VARISTOR >			
VDR201	1-803-742-21	VARISTOR, CHIP			

	A-7074-312-A	NS-10 BOARD, COMPLETE (TRV20/TRV20E) ************************************			(Ref.No.;4000Series)
		< SWITCH >			
S001	1-771-138-61	SWITCH, KEY BOARD (SLOW SHUTTER)			

	A-7074-314-A	PD-123(CA) BOARD, COMPLETE (TRV20) ***********************************			
	A-7074-367-A	PD-123 (SH) BOARD, COMPLETE ***			(TRV11/TRV11E) (Ref.No.;20000Series)
		< CAPACITOR >			
C2101	1-113-988-11	TANTAL. CHIP	68uF	20%	4V
C2102	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2105	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2106	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2107	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2108	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C2109	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2110	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2111	1-107-687-11	TANTAL. CHIP	3.3uF	20%	20V
C2112	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C2113	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C2114	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2115	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2116	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C2117	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C2118	1-164-866-11	CERAMIC CHIP	47PF	5%	16V (TRV20)
C2118	1-164-872-11	CERAMIC CHIP	82PF	5%	16V (TRV11/TRV11E)
C2119	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C2120	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C2121	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C2122	1-113-994-11	TANTAL. CHIP	6.8uF	20%	16V
C2123	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2124	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2125	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C2127	1-135-177-21	TANTALUM CHIP	1uF	20%	20V (TRV11/TRV11E)

Ref. No.	Part No.	Description	Remarks
C2128	1-107-826-91	CERAMIC CHIP 0.1uF 10%	16V
C2129	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C2130	1-107-682-11	CERAMIC CHIP 1uF 10%	16V
C2131	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V (TRV11/TRV11E)
C2132	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V (TRV11/TRV11E)
C2172	1-127-985-91	TANTAL. CHIP 47uF 20%	16V
C2173	1-107-826-91	CERAMIC CHIP 0.1uF 10%	16V
C2174	1-117-919-11	TANTAL. CHIP 10uF 20%	6.3V
C2175	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
C2180	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
		< CONNECTOR >	
CN2101	1-750-344-11	CONNECTOR, FFC/EPC (ZIF) 24P	
CN2173	1-785-283-21	PIN, CONNECTOR (PC BOARD) 14P	
CN2174	1-785-554-21	CONNECTOR (5P), CARD EDGE	
CN2175	1-784-420-11	CONNECTOR, FFC/FPC (ZIF) 21P	
CN2176	1-779-064-11	PIN, CONNECTOR (PC BOARD) 12P	
		< DIODE >	
D2101	8-719-073-01	DIODE MA111-TX	
D2102	8-713-102-80	DIODE 1T369-01-T8A	
D2103	8-719-073-01	DIODE MA111-TX (TRV11/TRV11E)	
		< IC >	
IC2104	8-759-660-92	IC RB5P003AM1	
IC2105	8-759-591-93	IC CM7019L3-T4 (TRV20)	
IC2105	8-759-660-91	IC LZ9FF424 (TRV11/TRV11E)	
IC2106	8-759-478-92	IC TC7SET04FU(TE85R) (TRV11/TRV11E)	
IC2171	8-759-573-02	IC BU9735K-E2	
		< COIL >	
L2101	1-469-525-91	INDUCTOR 10uH	
L2102	1-414-771-91	INDUCTOR CHIP 10uH	
L2103	1-414-771-91	INDUCTOR CHIP 10uH	
L2104	1-414-771-91	INDUCTOR CHIP 10uH	
L2105	1-412-943-11	INDUCTOR 2.2uH (TRV20)	
L2105	1-412-945-11	INDUCTOR 3.3uH (TRV11/TRV11E)	
L2172	1-412-056-11	INDUCTOR 4.7uH	
L2173	1-414-757-11	INDUCTOR 100uH	
		< TRANSISTOR >	
Q2102	8-729-041-23	TRANSISTOR MGSF1P02LT1	(TRV11/TRV11E)
Q2103	8-729-037-53	TRANSISTOR 2SB1462J-QR(K8).SO	(TRV11/TRV11E)
Q2104	8-729-037-52	TRANSISTOR 2SD2216J-QR(K8).SO	(TRV11/TRV11E)
Q2105	8-729-037-53	TRANSISTOR 2SB1462J-QR(K8).SO	(TRV11/TRV11E)
Q2106	8-729-037-52	TRANSISTOR 2SD2216J-QR(K8).SO	(TRV11/TRV11E)
Q2107	8-729-037-52	TRANSISTOR 2SD2216J-QR(K8).SO	
Q2108	8-729-037-74	TRANSISTOR UN9213J-(K8).SO	
Q2172	8-729-042-72	TRANSISTOR UN9214J-(K8).SO	
Q2173	8-729-037-53	TRANSISTOR 2SB1462J-QR(K8).SO	
		< RESISTOR >	
R2101	1-218-990-11	SHORT 0	(TRV20)
R2103	1-218-990-11	SHORT 0	(TRV11/TRV11E)
R2105	1-218-985-11	RES-CHIP 470K 5%	1/16W
R2106	1-208-719-11	METAL CHIP 33K 0.5%	1/16W
R2107	1-218-970-11	METAL CHIP 27K 0.5%	1/16W
R2111	1-218-977-11	RES-CHIP 100K 5%	1/16W
R2112	1-216-835-11	METAL CHIP 15K 5%	1/16W
R2113	1-218-958-11	RES-CHIP 2.7K 5%	1/16W
R2114	1-218-973-11	RES-CHIP 47K 5%	1/16W
R2116	1-218-975-11	RES-CHIP 68K 5%	1/16W
R2117	1-218-969-11	RES-CHIP 22K 5%	1/16W
R2118	1-218-975-11	RES-CHIP 68K 5%	1/16W
R2119	1-218-989-11	RES-CHIP 1M 5%	1/16W
R2120	1-218-977-11	RES-CHIP 100K 5%	1/16W
R2121	1-218-989-11	RES-CHIP 1M 5%	1/16W (TRV11/TRV11E)
R2122	1-218-974-11	RES-CHIP 56K 5%	1/16W (TRV20)
R2123	1-218-990-11	SHORT 0	(TRV20)
R2124	1-218-990-11	SHORT 0	(TRV11/TRV11E)
R2125	1-500-284-21	INDUCTOR CHIP 0UH (Note)	
R2126	1-218-990-11	SHORT 0	(TRV20)
R2127	1-218-942-11	RES-CHIP 120 5%	1/16W
R2129	1-218-965-11	RES-CHIP 10K 5%	1/16W
R2133	1-218-941-11	RES-CHIP 100 5%	1/16W
R2134	1-218-941-11	RES-CHIP 100 5%	1/16W
R2135	1-218-941-11	RES-CHIP 100 5%	1/16W
R2140	1-218-990-11	SHORT 0	(TRV20)
R2141	1-218-965-11	RES-CHIP 10K 5%	1/16W
R2142	1-218-985-11	RES-CHIP 470K 5%	1/16W
R2143	1-218-980-11	RES-CHIP 180K 5%	1/16W (TRV11/TRV11E)
R2144	1-218-990-11	SHORT 0	(TRV20)
R2146	1-218-990-11	SHORT 0	(TRV20)
R2147	1-218-965-11	RES-CHIP 10K 5%	1/16W (TRV11/TRV11E)
R2148	1-218-973-11	RES-CHIP 47K 5%	1/16W (TRV11/TRV11E)
R2149	1-218-990-11	SHORT 0	(TRV20)
R2150	1-218-989-11	RES-CHIP 1M 5%	1/16W (TRV11/TRV11E)
R2151	1-218-989-11	RES-CHIP 1M 5%	1/16W (TRV11/TRV11E)
R2152	1-218-990-11	SHORT 0	
R2153	1-218-990-11	SHORT 0	
R2154	1-218-990-11	SHORT 0	
R2175	1-218-961-11	RES-CHIP 4.7K 5%	1/16W
R2176	1-218-953-11	RES-CHIP 1K 5%	1/16W
R2177	1-216-864-11	METAL CHIP 0 5%	1/16W
R2180	1-216-855-11	METAL CHIP 680K 5%	1/16W

Note : Inductor is mounted to the location where R2125 is printed.

PD-124

Ref. No.	Part No.	Description			Remarks
	A-7074-394-A	PD-124(ST2) BOARD, COMPLETE			(TRV6/TRV6E)
		***			
	A-7074-397-A	PD-124(ST3) BOARD, COMPLETE (TRV20E)			
		*************************************			
					(Ref.No.;30000Series)
		< CAPACITOR >			
C3101	1-113-988-11	TANTAL. CHIP	68uF	20%	4V
C3102	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3104	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C3105	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3106	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3107	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3108	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3109	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3110	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3111	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C3112	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C3113	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C3114	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C3115	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C3116	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3117	1-164-864-11	CERAMIC CHIP	39PF	5%	16V (TRV20E)
C3117	1-164-866-11	CERAMIC CHIP	47PF	5%	16V (TRV6/TRV6E)
C3118	1-107-687-11	TANTAL. CHIP	3.3uF	20%	20V
C3119	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C3120	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C3121	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C3126	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C3127	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3128	1-164-506-11	CERAMIC CHIP	4.7uF		16V
C3129	1-109-982-11	CERAMIC CHIP	1uF	10%	10V (TRV20E)
C3130	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C3131	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C3132	1-109-982-11	CERAMIC CHIP	1uF	10%	10V (TRV6/TRV6E)
C3133	1-164-876-11	CERAMIC CHIP	120PF	5%	16V
C3134	1-164-876-11	CERAMIC CHIP	120PF	5%	16V
C3135	1-164-876-11	CERAMIC CHIP	120PF	5%	16V
C3136	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3137	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3171	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3173	1-127-985-91	TANTAL. CHIP	47uF	20%	16V
C3174	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C3175	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C3176	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< CONNECTOR >			
CN3101	1-750-344-11	CONNECTOR, FFC/EPC (ZIF) 24P			
CN3171	1-779-064-11	PIN, CONNECTOR (PC BOARD) 12P			
CN3172	1-785-283-21	PIN, CONNECTOR (PC BOARD) 14P			
CN3173	1-784-420-11	CONNECTOR, FFC/FPC (ZIF) 21P			
CN3174	1-785-554-21	CONNECTOR (5P), CARD EDGE			

Ref. No.	Part No.	Description			Remarks
		< DIODE >			
D3101	8-719-073-01	DIODE MA111-TX			
D3102	8-713-102-80	DIODE 1T369-01-T8A			
D3103	8-719-050-39	DIODE RD2.7UM-T1B			(TRV20E)
D3104	8-719-050-44	DIODE RD3.3UM-T1B2			(TRV6/TRV6E)
D3105	8-719-073-01	DIODE MA111-TX			
		< IC >			
IC3101	8-759-660-93	IC RB5P004AM1			
IC3102	8-752-403-84	IC CXD3505R-T4			
IC3171	8-759-573-02	IC BU9735K-E2			
		< COIL >			
L3101	1-414-771-91	INDUCTOR CHIP	10uH		
L3102	1-414-754-11	INDUCTOR	10uH		
L3103	1-414-771-91	INDUCTOR CHIP	10uH		
L3104	1-412-943-11	INDUCTOR	2.2uH		(TRV20E)
L3104	1-412-945-11	INDUCTOR	3.3uH		(TRV6/TRV6E)
L3171	1-412-056-11	INDUCTOR	4.7uH		
L3172	1-414-757-11	INDUCTOR	100uH		
		< TRANSISTOR >			
Q3102	8-729-037-74	TRANSISTOR	UN9213J-(TX).SO		
Q3103	8-729-041-23	TRANSISTOR	NDS356AP		
Q3104	8-729-037-53	TRANSISTOR	2SB1462J-QR(K8).SO		
Q3105	8-729-427-74	TRANSISTOR	XP4601-TXE		
Q3106	8-729-427-74	TRANSISTOR	XP4601-TXE		
Q3107	8-729-037-52	TRANSISTOR	2SD2216J-QR(K8).SO		
Q3108	8-729-037-74	TRANSISTOR	UN9213J-(TX).SO		
Q3171	8-729-042-72	TRANSISTOR	UN9214J-(K8).SO		
Q3172	8-729-037-53	TRANSISTOR	2SB1462J-QR(K8).SO		
		< RESISTOR >			
R3102	1-208-719-11	METAL CHIP	33K	0.5%	1/16W
R3105	1-208-719-11	METAL CHIP	33K	0.5%	1/16W
R3106	1-218-985-11	RES-CHIP	470K	5%	1/16W
R3107	1-218-985-11	RES-CHIP	470K	5%	1/16W
R3108	1-218-967-11	RES-CHIP	15K	5%	1/16W
R3109	1-218-990-11	SHORT	0		
R3110	1-218-973-11	RES-CHIP	47K	5%	1/16W
R3111	1-218-975-11	RES-CHIP	68K	5%	1/16W
R3112	1-218-969-11	RES-CHIP	22K	5%	1/16W
R3113	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3114	1-218-975-11	RES-CHIP	68K	5%	1/16W
R3116	1-218-989-11	RES-CHIP	1M	5%	1/16W
R3117	1-218-990-11	SHORT	0		
R3121	1-218-929-11	RES-CHIP	10	5%	1/16W
R3122	1-218-929-11	RES-CHIP	10	5%	1/16W
R3123	1-218-929-11	RES-CHIP	10	5%	1/16W
R3124	1-218-941-11	RES-CHIP	100	5%	1/16W
R3125	1-218-985-11	RES-CHIP	470K	5%	1/16W
R3126	1-218-990-11	SHORT	0		
R3127	1-218-981-11	RES-CHIP	220K	5%	1/16W
R3128	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3131	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3132	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3133	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3134	1-216-847-11	METAL CHIP	150K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R3135	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3136	1-218-990-11	SHORT	0		
R3137	1-218-974-11	RES-CHIP	56K	5%	1/16W (TRV20E)
R3139	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R3140	1-218-941-11	RES-CHIP	100	5%	1/16W
R3141	1-218-941-11	RES-CHIP	100	5%	1/16W
R3142	1-218-941-11	RES-CHIP	100	5%	1/16W
R3143	1-218-990-11	SHORT	0	(TRV20E)	
R3144	1-218-990-11	SHORT	0	(TRV6/TRV6E)	
R3146	1-220-207-81	RES-CHIP	110K	5%	1/16W (TRV20E)
R3147	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3148	1-216-864-11	METAL CHIP	0	5%	1/16W
R3149	1-218-990-11	SHORT	0		
R3150	1-216-864-11	METAL CHIP	0	5%	1/16W
R3151	1-218-990-11	SHORT	0		
R3152	1-208-860-81	METAL CHIP	75	0.5%	1/16W (TRV20E)
R3152	1-218-990-11	SHORT	0	(TRV6/TRV6E)	
R3153	1-208-860-81	METAL CHIP	75	0.5%	1/16W (TRV20E)
R3153	1-218-990-11	SHORT	0	(TRV6/TRV6E)	
R3154	1-208-860-81	METAL CHIP	75	0.5%	1/16W (TRV20E)
R3154	1-218-990-11	SHORT	0	(TRV6/TRV6E)	
R3157	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3158	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3159	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3160	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3171	1-216-864-11	METAL CHIP	0	5%	1/16W
R3172	1-216-864-11	METAL CHIP	0	5%	1/16W
R3173	1-216-864-11	METAL CHIP	0	5%	1/16W
R3174	1-216-855-11	METAL CHIP	680K	5%	1/16W
R3175	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R3176	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3177	1-216-864-11	METAL CHIP	0	5%	1/16W

A-7074-311-A SE-107 BOARD, COMPLETE

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(Ref.No.;4000Series)

< PHOTO INTERRUPTER >

Ref. No.	Part No.	Description
PH081	8-749-011-97	PHOTO INTERUPTER GP1S93
PH082	8-749-011-97	PHOTO INTERUPTER GP1S93

Ref. No.	Part No.	Description	Remarks
	A-7094-887-A	VC-240(H) BOARD, COMPLETE (SERVICE)	(TRV20/TRV20E)

****

(Ref.No.;10000Series)

Ref. No.	Part No.	Description	Remarks
	A-7094-995-A	VC-241 (M) BOARD, COMPLETE (SERVICE)	(TRV11/TRV11E:AUS,E,HK,JE,CN)
	A-7094-996-A	VC-241(L) BOARD, COMPLETE (SERVICE)	(TRV6/TRV6E:AUS,E,HK,JE,CN)
	A-7094-997-A	VC-241 (L-CE) BOARD, COMPLETE (SERVICE)	(TRV6E:AEP,UK)
	A-7094-963-A	VC-241(M-CE) BOARD, COMPLETE (SERVICE)	(TRV11E:AEP,UK)

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(Ref.No.;10000Series)

Electrical parts list of the VC-240/241 board are not shown.
pages 6-23 to 6-44 are not shown.

Ref. No.	Part No.	Description	Remarks
		MISCELLANEOUS *************	
15	1-694-493-11	TERMINAL BOARD, BATTERY	
18	1-677-561-11	FP-179 FLEXIBLE	
62	1-418-979-11	SWITCH BLOCK, CONTROL(CF30150)	
103	1-960-425-11	HARNESS (PC-118)	
104	1-960-426-11	HARNESS (PC-119)	
⚠112	1-418-877-21	TRANSFORMER UNIT, INVERTER	(TRV6/TRV6E)
153	1-960-425-11	HARNESS (PC-118)	
154	1-960-426-11	HARNESS (PC-119)	
158	1-677-563-21	FP-181 FLEXIBLE	
⚠162	1-418-877-11	TRANSFORMER UNIT, INVERTER	(TRV11/TRV11E/TRV20/TRV20E)
209	1-418-973-31	SWITCH BLOCK, CONTROL (FK30150)	(TRV11/TRV11E:AUS,E,HK,JE,CN/TRV20/TRV20E)
209	1-418-973-41	SWITCH BLOCK, CONTROL (FK30150)	(TRV11E:AEP,UK)
209	1-418-973-51	SWITCH BLOCK, CONTROL (FK30150)	(TRV6/TRV6E:AUS,E,HK,JE,CN)
209	1-418-973-61	SWITCH BLOCK, CONTROL (FK30150)	(TRV6E:AEP,UK)
213	1-785-247-21	CONNECTOR, DC-IN	
253	1-677-565-11	FP-183 FLEXIBLE	(TRV11/TRV11E/TRV20/TRV20E)
254	1-785-593-31	CONNECTOR, MEMORY STICK	(TRV11/TRV11E/TRV20/TRV20E)
266	1-418-972-11	SWITCH BLOCK, CONTROL (PS30150)	
302	8-848-737-01	DEVICE, LENS LSV-650B	(TRV6/TRV6E/TRV11/TRV11E)
302	8-848-739-01	DEVICE, LENS LSV-690A (TRV20/TRV20E)	
306	1-785-594-11	CONNECTOR (HOT SHOE), OUTER	
307	1-758-155-21	FILTER BLOCK, OPTICAL	(TRV6/TRV6E/TRV11/TRV11E)
307	1-758-353-11	FILTER BLOCK, OPTICAL (TRV20/TRV20E)	
325	1-677-562-11	FP-180 FLEXIBLE	
332	1-677-566-21	FP-219 FLEXIBLE, COMPLETE	(TRV6/TRV6E/TRV11/TRV11E)
811	1-677-049-11	FP-228 FLEXIBLE	
812	1-677-084-11	FP-100 FLEXIBLE	
D901	8-719-078-71	DIODE LA57A,SO (TAPE LED)	
H901	8-719-067-74	ELEMENT, HOLE HW-105A-CDE-T (S REEL)	
H902	8-719-067-74	ELEMENT, HOLE HW-105A-CDE-T (T REEL)	
IC101	A-7031-073-A	CCD BLOCK ASSY (TRV20/TRV20E)	
IC3000	A-7031-011-A	CCD BLOCK ASSY (TRV6/TRV11)	
IC3000	A-7031-012-A	CCD BLOCK ASSY (TRV6E/TRV11E)	
LCD901	1-803-856-21	INDICATOR MODULE LIQUID CRYST	(TRV11/TRV11E)
LCD901	1-803-862-21	INDICATOR MODULE LIQUID CRYST (SERVICE)	(TRV20)
LCD901	8-753-050-44	ACX305AK-J (SERVICE)(TRV20E)	
LCD901	8-753-050-53	ACX300CKA-1 (TRV6/TRV6E)	
LCD903	8-753-026-77	LCX033AK-1 (TRV20/TRV20E)	
LCD903	A-7094-871-A	LCX032AK-1/5 COMPL	(TRV6/TRV6E/TRV11/TRV11E)
M901	A-7048-940-A	DRUM BLOCK ASSY (DEH-18A-R)(SERVICE)	
M902	8-835-685-01	MOTOR, DC SCD18A/C-NP (INCLUDING BELT)	
M903	A-7094-823-A	MOTOR BLOCK ASSY, L	
MIC901	1-418-351-21	MICROPHONE UNIT	
⚠ND901	1-517-751-51	TUBE, FLUORESCENT,COLD CATHODE	(TRV6/TRV6E)
⚠ND901	1-517-869-31	TUBE, FLUORESCENT,COLD CATHODE (TRV20)	
⚠ND901	1-517-869-41	TUBE, FLUORESCENT,COLD CATHODE	(TRV11/TRV11E)
⚠ND901	1-517-869-51	TUBE, FLUORESCENT,COLD CATHODE(TRV20E)	
Q901	8-729-028-71	TRANSISTOR PN 166, SO (TAPE END)	
Q902	8-729-028-71	TRANSISTOR PN 166, SO (TAPE TOP)	
S903	1-771-326-41	SWITCH, PUSH LEVER (1 KEY) (CC DOWN)	
SP901	1-529-590-11	SPEAKER (2.0CM)	
		ACCESSORIES ************	
	1-475-141-21	REMOTE COMMANDER (RMT-808)	(TRV6/TRV6E:AUS,E,HK,JE,CN)
	1-475-141-31	REMOTE COMMANDER (RMT-809)	(TRV6E:AEP,UK)
⚠	1-475-599-11	ADAPTOR, AC (AC-L10)	(TRV6:US,CND,HK,E,JE/TRV6E:AEP,UK,AUS,E,HK,JE/TRV11:US,CND,HK,E,JE/TRV11E:AEP,UK,AUS,E,HK,JE/TRV20:US,CND,HK,E,JE/TRV20E:AEP,UK,AUS,E,HK,JE)
⚠	1-475-599-71	ADAPTOR, AC (AC-L10)	(TRV6:KR/TRV11:KR/TRV20:KR)
⚠	1-475-599-81	ADAPTOR, AC (AC-L10)	(TRV6E:CN/TRV11E:CN/TRV20E:CN)
	1-475-950-21	REMOTE COMMANDER (RMT-811)	(TRV11/TRV11E:AUS,E,HK,JE,CN/TRV20/TRV20E)
	1-475-950-31	REMOTE COMMANDER (RMT-812)	(TRV11E:AEP,UK)
	1-569-007-11	ADAPTOR, CONVERSION 2P	(TRV6:JE/TRV6E:JE/TRV11:JE/TRV11E:JE/TRV20:JE/TRV20E:JE)
	1-569-008-21	ADAPTOR, CONVERSION 2P	(TRV6:E,HK/TRV6E:E,HK/TRV11:E,HK/TRV11E:E,HK/TRV20:E,HK/TRV20E:E,HK)
	1-573-291-11	CONNECTOR, CONVERSION (21P)	(TRV6E:AEP,UK/TRV11E:AEP,UK/TRV20E:AEP,UK)
⚠	1-696-819-11	CORD,POWER	(TRV6E:AUS/TRV11E:AUS/TRV20E:AUS)
	1-765-080-11	CORD,CONNECTION (A/V)(1.5m)	
⚠	1-769-608-11	CORD,POWER	(TRV6:E/TRV6E:AEP,E/TRV11:E/TRV11E:AEP,E/TRV20:E/TRV20E:AEP,E)
⚠	1-776-985-11	CORD,POWER (TRV6:KR/TRV11:KR/TRV20:KR)	
⚠	1-782-476-11	CORD,POWER	(TRV6E:CN/TRV11E:CN/TRV20E:CN)
⚠	1-783-374-11	CORD,POWER	(TRV6:HK/TRV6E:UK,HK/TRV11:HK/TRV11E:UK,HK/TRV20:HK/TRV20E:UK,HK)
⚠	1-790-073-11	CORD,POWER 2P	(TRV6:JE/TRV6E:JE/TRV11:JE/TRV11E:JE/TRV20:JE/TRV20E:JE)
⚠	1-790-107-22	CORD,POWER	(TRV6:US,CND/TRV11:US,CND/TRV20:US,CND)
	1-792-451-11	CABLE,RS 232C	(TRV11/TRV11E/TRV20/TRV20E)
	3-053-056-01	LID,BATTERY CASE (FOR RMT-811,812)	(TRV11/TRV11E/TRV20/TRV20E)

Be sure to read “Precautions upon replacing CCD imager” on page 4-12,14 when changing the CCD imager.

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remarks
	3-057-401-01	HOOD,LENS (TRV20/TRV20E)	
	3-059-592-11	MANUAL, INSTRUCTION (ENGLISH) (TRV6:US,CND,E,HK,JE/TRV11:US,CND,E,HK,JE/ TRV20:US,CND,E,HK,JE)	
	3-059-592-21	MANUAL, INSTRUCTION (FRENCH) (TRV6:CND/TRV11:CND/TRV20:CND)	
	3-059-592-31	MANUAL, INSTRUCTION (SPANISH/PORTUGUESE) (TRV6:E,JE/TRV11:E,JE/TRV20:E,JE)	
	3-059-592-41	MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (TRV6:E,HK/TRV11:E,HK/TRV20:E,HK)	
	3-059-592-51	MANUAL, INSTRUCTION (KOREAN) (TRV6:JE,KR/TRV11:JE,KR/TRV20:JE,KR)	
	3-059-592-61	MANUAL, INSTRUCTION (ARABIC) (TRV6:E/TRV11:E/TRV20:E)	
	3-059-593-11	MANUAL, INSTRUCTION (ENGLISH/RUSSIAN) (TRV6E:AUS,E,HK,JE,CN/TRV11E:AUS,E,HK,JE,CN/ TRV20E:AUS,E,HK,JE,CN)	
	3-059-593-21	MANUAL, INSTRUCTION (FRENCH/GERMAN) (TRV6E:E,JE/TRV11E:E,JE/TRV20E:E,JE)	
	3-059-593-31	MANUAL, INSTRUCTION (ARABIC/PERSIAN) (TRV6E:E/TRV11E:E/TRV20E:E)	
	3-059-593-41	MANUAL, INSTRUCTION (SIMPLIFIED CHINESE) (TRV6E:E,JE,CN/TRV11E:E,JE,CN/TRV20E:E,JE,CN)	
	3-059-593-51	MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (TRV6E:HK/TRV11E:HK/TRV20E:HK)	
	3-059-594-11	MANUAL, INSTRUCTION (ENGLISH/RUSSIAN) (TRV6E:AEP,UK/TRV11E:AEP,UK/TRV20E:AEP,UK)	
	3-059-594-21	MANUAL, INSTRUCTION (FRENCH/GERMAN) (TRV6E:AEP/TRV11E:AEP/TRV20E:AEP)	
	3-059-594-31	MANUAL, INSTRUCTION (SPANISH/PORTUGUESE) (TRV6E:AEP/TRV11E:AEP/TRV20E:AEP)	
	3-059-594-41	MANUAL, INSTRUCTION (ITALIAN/DUTCH) (TRV6E:AEP/TRV11E:AEP/TRV20E:AEP)	
	3-060-457-11	MANUAL, INSTRUCTION (PICTURE GEAR 4.1 LITE) (ENGLISH) (TRV11:US,CND,E,HK,JE/TRV20:US,CND,E,HK,JE)	
	3-060-457-21	MANUAL, INSTRUCTION (PICTURE GEAR 4.1 LITE) (FRENCH) (TRV11:CND/TRV20:CND)	
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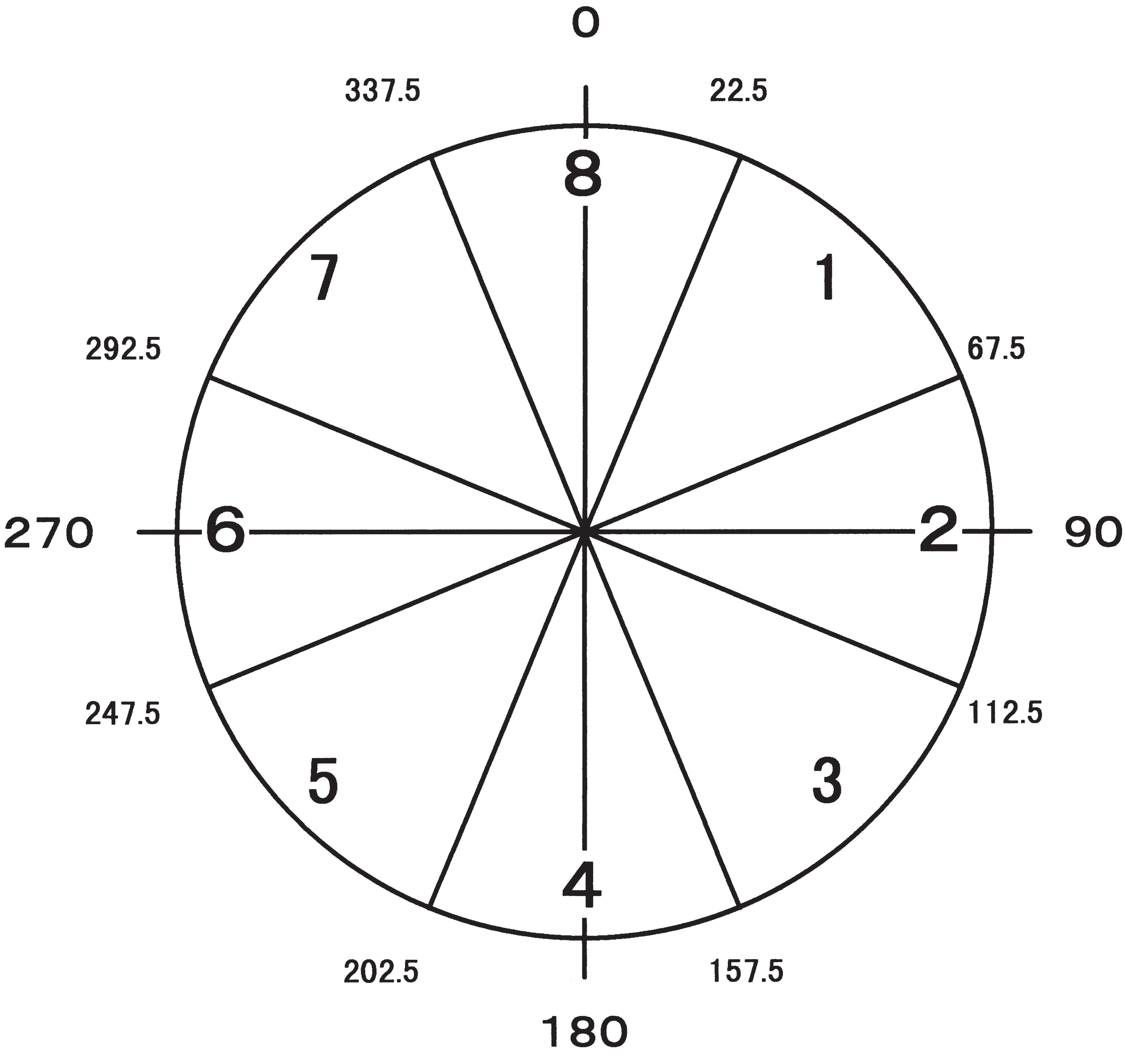
	3-060-457-41	MANUAL, INSTRUCTION (PICTURE GEAR 4.1 LITE) (KOREAN) (TRV11:JE,KR/TRV20:JE,KR)	
	3-060-458-11	MANUAL, INSTRUCTION (PICTURE GEAR 4.1 LITE) (ENGLISH/RUSSIAN) (TRV11E/TRV20E)	
	3-060-458-21	MANUAL, INSTRUCTION (PICTURE GEAR 4.1 LITE) (FRENCH/GERMAN) (TRV11E:AEP,E,JE/TRV20E:AEP,E,JE)	
	3-060-458-31	MANUAL, INSTRUCTION (PICTURE GEAR 4.1 LITE) (ITALIAN/DUTCH) (TRV11E:AEP/TRV20E:AEP)	
	3-060-458-41	MANUAL, INSTRUCTION (PICTURE GEAR 4.1 LITE) (SPANISH/PORTUGUESE) (TRV11:E,JE/TRV11E:AEP/TRV20:E,JE/TRV20E:AEP)	
	3-060-458-61	MANUAL, INSTRUCTION (PICTURE GEAR 4.1 LITE) (ARABIC/SWEDISH) (TRV11:E/TRV11E:E/TRV20:E/TRV20E:E)	
	3-060-458-71	MANUAL, INSTRUCTION (PICTURE GEAR 4.1 LITE) (SIMPLIFIED CHINESE) (TRV11E:E,JE,CN/TRV20E:E,JE,CN)	
	3-060-476-01	DISK, SYSTEM (PICTURE GEAR 4.1 LITE) (TRV11/TRV11E/TRV20/TRV20E)	
	3-742-854-21	LID, BATTERY CASE (FOR RMT-808,809) (TRV6/TRV6E)	
	3-987-015-01	BELT(S), SHOULDER	
	A-7033-740-A	MEMORY STICK (TRV11/TRV11E/TRV20/TRV20E)	

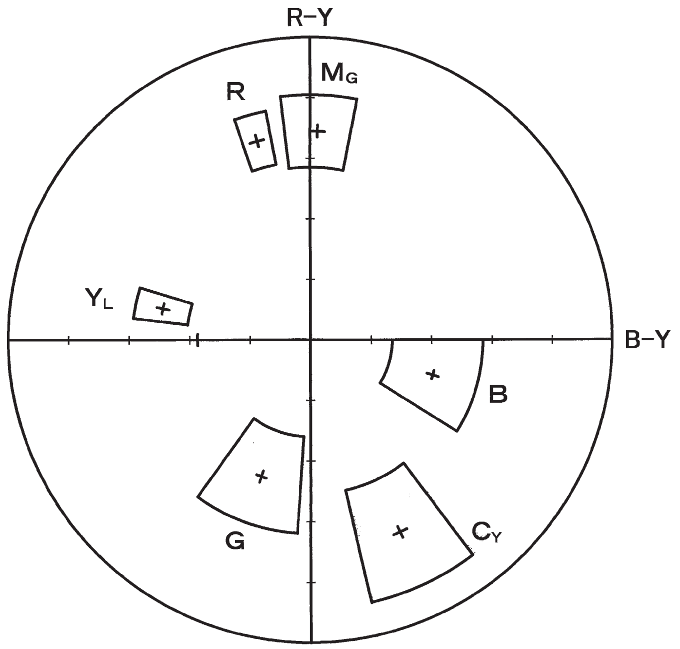
〈OPTICAL AXIS FRAME〉


0
337.5
22.5
8
7
1
292.5
67.5
270
6
2
90
247.5
112.5
5
3
4
202.5
157.5
180

Take a copy of OPTICAL AXIS FRAME with a clear sheet for use.

〈FOR CAMERA COLOR REPRODUCTION ADJUSTMENT〉

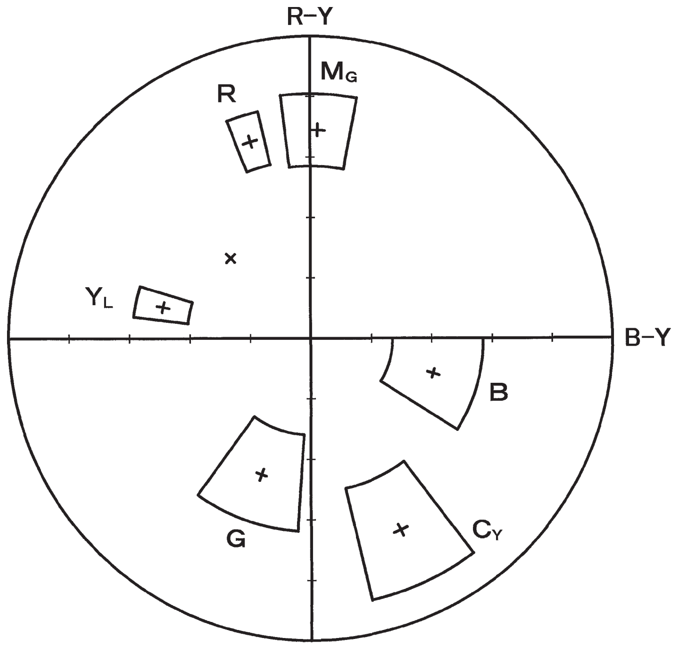
For NTSC model


R−Y
MG
R
YL
B−Y
B
G
CY

DCR-TRV6/TRV11

Take a copy of CAMERA COLOR REPRODUCTION FRAME with a clear sheet for use.

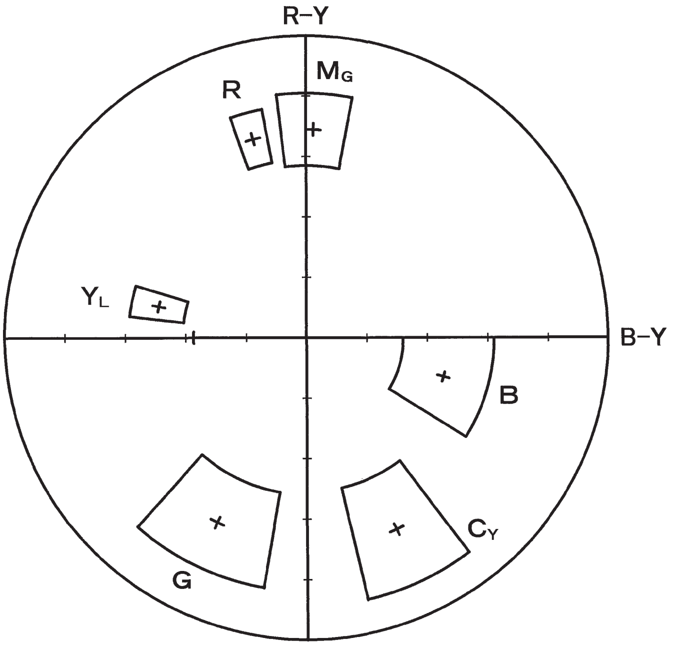
For PAL model


R−Y
MG
R
YL
B−Y
B
G
CY

DCR-TRV6E/TRV11E

〈FOR CAMERA COLOR REPRODUCTION ADJUSTMENT〉

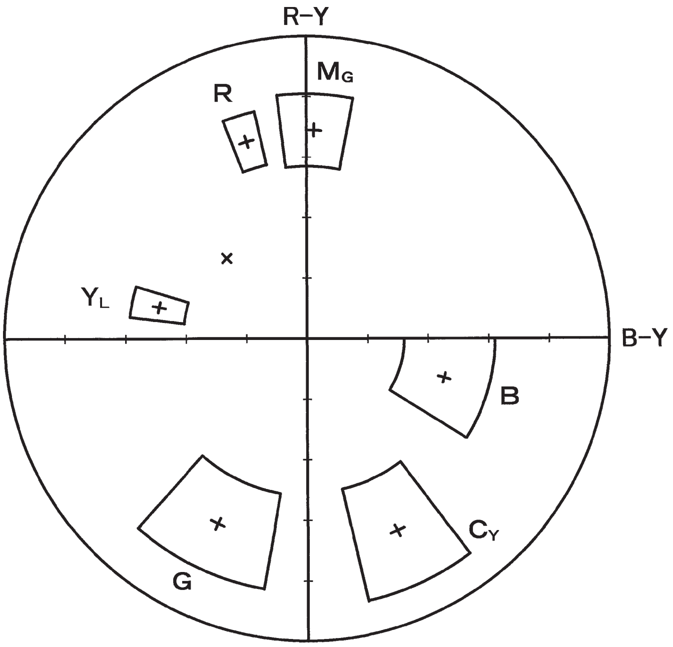
For NTSC model


R–Y
MG
R
YL
B–Y
B
CY
G

DCR-TRV20

Take a copy of CAMERA COLOR REPRODUCTION FRAME with a clear sheet for use.

For PAL model


R–Y
MG
R
YL
B–Y
B
CY
G

DCR-TRV20E

Sony Corporation
Personal VIDEO Products Company

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DCR-TRV6/TRV6E/TRV11/ TRV11E/TRV20/TRV20E

RMT-808/809/811/812

SONY®

SERVICE MANUAL

Level 2

2000. 06

US Model
Canadian Model
Korea Model
DCR-TRV6/TRV11/TRV20
AEP Model
UK Model
Australian Model
Chinese Model
DCR-TRV6E/TRV11E/TRV20E
E Model
Hong Kong Model
Tourist Model
DCR-TRV6/TRV6E/TRV11/
TRV11E/TRV20/TRV20E

CORRECTION-1

Correct your service manual as shown below.
(00-002)

- Errors in SECTION 5. ADJUSTMENT and SECTION 6. REPAIR PARTS LIST are corrected as follows.

✎ : Changed portion.

<table>
<tr><th>Page</th><th>INCORRECT</th><th>CORRECT</th></tr>
<tr><td>5-3</td><td>SECTION 5. ADJUSTMENT
<table>
<tr><td>VC-241 board</td><td>(COMPLETE)</td><td rowspan="5">Board replacement</td></tr>
<tr><td>JK-188 board</td><td>(COMPLETE)</td></tr>
<tr><td>PD-123 board</td><td>(COMPLETE) *1</td></tr>
<tr><td>PD-124 board</td><td>(COMPLETE) *2</td></tr>
<tr><td>LB-64 board</td><td>(COMPLETE)</td></tr>
<tr><td>VC-241 board</td><td colspan="2">IC801 (EEPROM)</td></tr>
<tr><td>VC-241 board</td><td colspan="2">IC502 (EEPROM)</td></tr>
<tr><td>VC-241 board</td><td colspan="2">IC1406 (EEPROM) *1</td></tr>
</table></td><td>SECTION 5. ADJUSTMENT
<table>
<tr><td>VC-241 board</td><td>(COMPLETE)</td><td rowspan="5">Board replacement</td></tr>
<tr><td>JK-188 board</td><td>(COMPLETE)</td></tr>
<tr><td>PD-123 board</td><td>(COMPLETE) *1</td></tr>
<tr><td>PD-124 board</td><td>(COMPLETE) *2</td></tr>
<tr><td>LB-64 board</td><td>(COMPLETE)</td></tr>
<tr><td>VC-241 board</td><td colspan="2">IC801 (EEPROM)</td></tr>
<tr><td>VC-241 board</td><td colspan="2">IC502 (EEPROM)</td></tr>
<tr><td>VC-241 board</td><td colspan="2">IC1407 (Flash memory) *1 ✎</td></tr>
</table></td></tr>
<tr><td>5-12</td><td>4. D Page Table
*1: TRV11/TRV11E/TRV20E model only
*2: TRV6/TRV6E/TRV20 model only</td><td>4. D Page Table
*1: TRV11/TRV11E/TRV20 model only ✎
*2: TRV6/TRV6E/TRV20E model only ✎</td></tr>
<tr><td>5-14</td><td>4. Modification of B Page Data (DCR-TRV11/TRV11E)
Processing after Completing Modification of B Page data:
3) Select page: 5, address: 00, set data: 01, and press the PAUSE button. (The changed data are written in the EEPROM.)</td><td>4. Modification of B Page Data (DCR-TRV11/TRV11E)
Processing after Completing Modification of B Page data:
3) Select page: 5, address: 00, set data: 01, and press the PAUSE button. (The changed data are written in the flash memory.) ✎</td></tr>
</table>

✎ : Changed portion. ☛ : Deleted portion.

<table>
<tr><th>Page</th><th>INCORRECT</th><th>CORRECT</th></tr>
<tr><td>5-15</td>
<td>

5. B Page Table

<table>
<tr><th>Address</th><th>Remark</th></tr>
<tr><td>55 to 6F</td><td>Fixed data-1
(Initialized data)</td></tr>
<tr><td>70</td><td>Fixed data-2</td></tr>
<tr><td>71 to FF</td><td>Fixed data-1
(Initialized data)</td></tr>
</table>

Table. 5-1-6.

</td>
<td>

5. B Page Table

<table>
<tr><th>Address</th><th>Remark</th></tr>
<tr><td>55 to 5D</td><td>Fixed data-1
(Initialized data)</td></tr>
<tr><td>5E</td><td rowspan="2">Fixed data-2</td></tr>
<tr><td>5F</td></tr>
<tr><td>60 to 6F</td><td>Fixed data-1
(Initialized data)</td></tr>
<tr><td>70</td><td>Fixed data-2</td></tr>
<tr><td>71 to FF</td><td>Fixed data-1
(Initialized data)</td></tr>
</table>

Table. 5-1-6.

</td></tr>
<tr><td rowspan="2">5-38</td>
<td>

4. V-COM Level Adjustment (PD-123 board)

Note: Perform “Bright Adjustment” and “Contrast Adjustment” before this adjustment.

</td>
<td>

4. V-COM Level Adjustment (PD-123 board)

Note: Perform “RGB AMP Adjustment” and “Contrast Adjustment” before this adjustment.

</td></tr>
<tr>
<td>

5. V-COM Adjustment (PD-123 board)

Note: Perform “Bright Adjustment” and “Contrast Adjustment” before this adjustment.

</td>
<td>

5. V-COM Adjustment (PD-123 board)

Note: Perform “RGB AMP Adjustment”, “Contrast Adjustment” and “V-COM Level Adjustment” before this adjustment.

</td></tr>
<tr><td>5-51</td>
<td>

2. PLL f_0 & LPF f_0 Adjustment (VC-240/241 board)

Adjusting method:

5) Select page: 0, address: 01, and set data: 00.

<table>
<tr><th>Bit value of page: 3, address: 03 data</th><th>Error contents</th></tr>
<tr><td>bit 4 = 1</td><td>PLL f_0, even channel is defective</td></tr>
<tr><td>bit 5 = 1</td><td>PLL f_0, odd channel is defective</td></tr>
<tr><td>bit 6 = 1</td><td>LPF f_0 is defective</td></tr>
<tr><td>bit 3 = 1</td><td>PLL f_0, final adjustment is defective</td></tr>
<tr><td>bit 2 = 1</td><td>PLL f_0, final adjustment time-out</td></tr>
</table>

</td>
<td>

2. PLL f_0 & LPF f_0 Adjustment (VC-240/241 board)

Adjusting method:

5) Select page: 0, address: 01, and set data: 00.

<table>
<tr><th>Bit value of page: 3, address: 03 data</th><th>Error contents</th></tr>
<tr><td>bit 6 = 1</td><td>LPF f_0 is defective</td></tr>
<tr><td>bit 3 = 1</td><td>PLL f_0, final adjustment is defective</td></tr>
<tr><td>bit 2 = 1</td><td>PLL f_0, final adjustment time-out</td></tr>
</table>

</td></tr>
<tr><td>5-53</td>
<td>

5. PLL f_0 & LPF f_0 Final Adjustment (VC-240/241 board)

Adjusting method:

5) Select page: 0, address: 01, and set data: 00.

<table>
<tr><th>Bit value of page: 3, address: 03</th><th>Error contents</th></tr>
<tr><td>bit 4 = 1</td><td>PLL f_0, even channel is defective</td></tr>
<tr><td>bit 5 = 1</td><td>PLL f_0, odd channel is defective</td></tr>
<tr><td>bit 6 = 1</td><td>LPF f_0 is defective</td></tr>
<tr><td>bit 3 = 1</td><td>PLL f_0 final adjustment is defective</td></tr>
<tr><td>bit 2 = 1</td><td>PLL f_0 final adjustment time-out</td></tr>
</table>

</td>
<td>

5. PLL f_0 & LPF f_0 Final Adjustment (VC-240/241 board)

Adjusting method:

5) Select page: 0, address: 01, and set data: 00.

<table>
<tr><th>Bit value of page: 3, address: 03</th><th>Error contents</th></tr>
<tr><td>bit 6 = 1</td><td>LPF f_0 is defective</td></tr>
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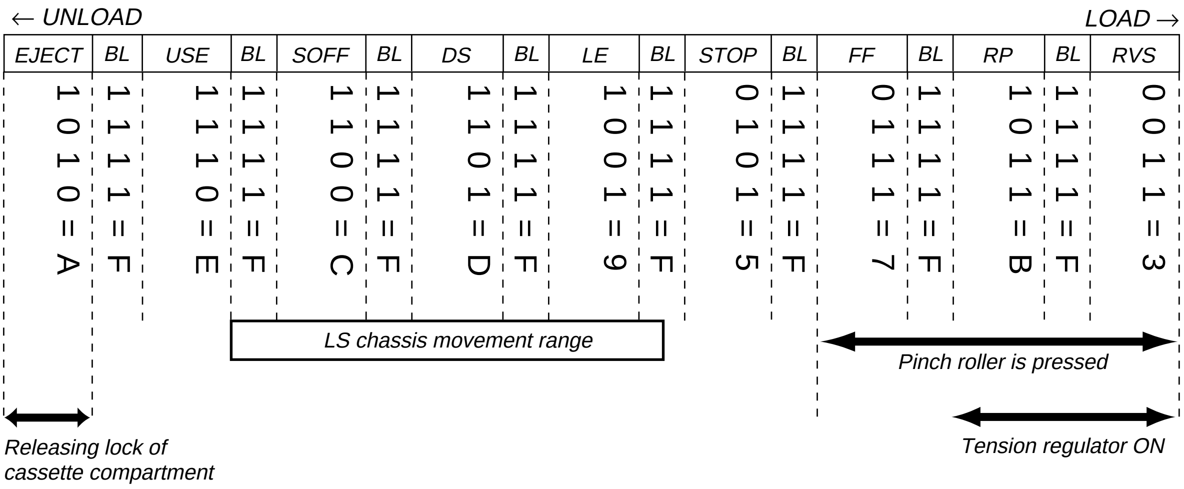
<tr><td>bit 2 = 1</td><td>PLL f_0 final adjustment time-out</td></tr>
</table>

</td></tr>
</table>

Page	INCORRECT
5-67	2-2. MSW Code

2-2. MSW Code

Mechanism Position

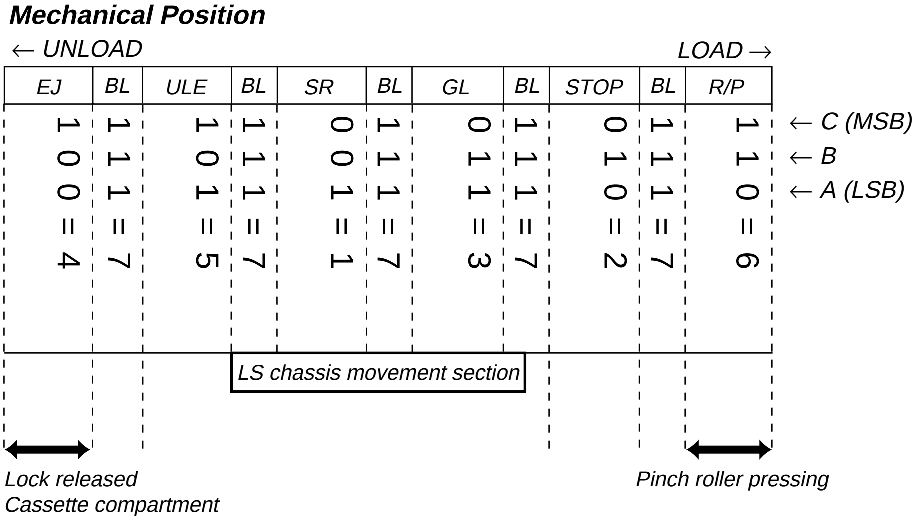

← UNLOAD
LOAD →
EJECT
BL
USE
BL
SOFF
BL
DS
BL
LE
BL
STOP
BL
FF
BL
RP
BL
RVS
1 0 1 0 = A
1 1 1 1 = F
1 1 1 0 = E
1 1 1 1 = F
1 1 0 0 = C
1 1 1 1 = F
1 1 0 1 = D
1 1 1 1 = F
1 0 0 1 = 9
1 1 1 1 = F
0 1 0 1 = 5
1 1 1 1 = F
0 1 1 1 = 7
1 1 1 1 = F
1 0 1 1 = B
1 1 1 1 = F
0 0 1 1 = 3
LS chassis movement range
Pinch roller is pressed
Releasing lock of cassette compartment
Tension regulator ON

Position	Code	Contents
EJECT	A	Position at which the cassette compartment lock is released, and position at the farthest unload side mechanically at which the mechanism can move no further in the UNLOAD direction.
BL	F	BLANK code, at the boundary between codes. The mechanism will not stop at this code during operations. (Excluding LOAD/UNLOAD)
USE	E	EJECT completion position. When the cassette is ejected, the mechanism will stop at this position. Cassette IN standby. The guide will start protruding out as the mechanism moves towards the LOAD position.
SOFF	C	Code during loading. Code outputs while the LS chassis is moving.
DS	D	LS operations and guide loading are performed here.
LE	9	Current limiter is turned off.
STOP	5	Stop position in the loading state. The pinch roller separates, the tension regulator returns, and the brake is imposed on both reels.
FF	7	FF position. The tension regulator is half on. This position is not used except for the FF mode.
RP	B	PB, REC, CUE, Pause, FX2, FWD-SLOW positions. When the pinch roller is pressed, and the tension regulator is ON, the mechanism is operating at this position in modes in which normal images are shown.
RVS	3	Reverse running position. REW, REV, RX1, RX2, and RVS-SLOW are performed at this position.
NULL	0	Code not existing in the MD. When errors occur when the loading motor is not driving, this code is memorized.

✎ : Changed portion.

Page	CORRECT
5-67	2-2. MSW Code

2-2. MSW Code



Position	Code	Contents
EJ	4	Position at which the cassette component lock is released, at the farthest unload side mechanically at which the mechanism can move no further in the UNLOAD direction.
BL	7	BLANK code, at the boundary between codes.
ULE	5	EJECT completion position. when the cassette is ejected, the mechanism will stop at this position. Cassette IN standby. The guide will start protruding out as the mechanism moves towards the LOAD position.
SR	1	Position at which it is possible to release the S ratchet.
GL	3	Guide loading are performed here.
STOP	2	Stop position in the loading state. The pinch roller separates, the tension regulator returns, and the brake is imposed on both reels.
R/P	6	PB, REC, CUE, REVIEW, PAUSE positions. When pinch roller is pressed, and the tension regulator is ON, the mechanism is operating at this position in modes in which normal images are shown.
NULL	0	Code not existing in the MD. Default value.

Page 6-5

INCORRECT

SECTION 6. REPAIR PARTS LIST

Ref. No.	Part No.	Description	Remarks
210	A-7074-995-A	VC-241 (M) BOARD, COMPLETE (SERVICE) (TRV11/TRV11E:AUS,E,HK,JE,CN)	
210	A-7074-996-A	VC-241 (L) BOARD, COMPLETE (SERVICE) (TRV6/TRV6E:AUS,E,HK,JE,CN)	
210	A-7074-997-A	VC-241 (L-CE) BOARD, COMPLETE (SERVICE)(TRV6E:AEP,UK)	

CORRECT

SECTION 6. REPAIR PARTS LIST

Ref. No.	Part No.	Description	Remarks
210	A-7094-995-A	VC-241 (M) BOARD, COMPLETE (SERVICE) (TRV11/TRV11E:AUS,E,HK,JE,CN)	
210	A-7094-996-A	VC-241 (L) BOARD, COMPLETE (SERVICE) (TRV6/TRV6E:AUS,E,HK,JE,CN)	
210	A-7094-997-A	VC-241 (L-CE) BOARD, COMPLETE (SERVICE)(TRV6E:AEP,UK)	

Page 6-21

INCORRECT

Part No.	Description
A-7074-995-A	VC-241 (M) BOARD, COMPLETE (SERVICE) (TRV11/TRV11E:AUS,E,HK,JE,CN) ************************************
A-7074-996-A	VC-241(L) BOARD, COMPLETE (SERVICE) (TRV6/TRV6E:AUS,E,HK,JE,CN) ************************************
A-7074-997-A	VC-241 (L-CE) BOARD, COMPLETE (SERVICE)(TRV6E:AEP,UK) ************************************

CORRECT

Part No.	Description
A-7094-995-A	VC-241 (M) BOARD, COMPLETE (SERVICE) (TRV11/TRV11E:AUS,E,HK,JE,CN) ************************************
A-7094-996-A	VC-241(L) BOARD, COMPLETE (SERVICE) (TRV6/TRV6E:AUS,E,HK,JE,CN) ************************************
A-7094-997-A	VC-241 (L-CE) BOARD, COMPLETE (SERVICE)(TRV6E:AEP,UK) ************************************

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DCR-TRV6/TRV6E/TRV11/ TRV11E/TRV20/TRV20E

RMT-808/809/811/812

SERVICE MANUAL

Ver 1.1 2000. 06

Level 2

Self Diagnosis Supported model

US Model
Canadian Model
Korea Model
DCR-TRV6/TRV11/TRV20
AEP Model
UK Model
Australian Model
Chinese Model
DCR-TRV6E/TRV11E/TRV20E
E Model
Hong Kong Model
Tourist Model
DCR-TRV6/TRV6E/TRV11/
TRV11E/TRV20/TRV20E

J MECHANISM

Photo : DCR-TRV20E
RMT-811

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3. BLOCK DIAGRAMS	OVERALL
	POWER
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	CK-92/94 BOARD
	LB-64 BOARD
	JK-188 BOARD
	PD-123/124 BOARD
	SE-107 BOARD
	MA-385 BOARD
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DIGITAL VIDEO CAMERA RECORDER

SONY®

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- VC-240/241 (CONNECTION)(24/24) SCHEMATIC DIAGRAM ············ 4-65
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- VC-241 (A/D CONV, LENS DRIVER, CAMERA CONTROL, DV SIGNAL PROCESS, REC/PB AMP, DS CONTROL, JPEG, LINE IN/OUT, IR, DRUM/CAPSTAN MOTOR DRIVE, MECHA CONTROL, HI CONTROL, AUDIO I/O) PRINTED WIRING BOARD ············ 4-71

4-3. WAVEFORMS ············ 4-116
4-4. MOUNTED LOCATION ············ 4-120

6. REPAIR PARTS LIST

6-2. ELECTRICAL PARTS LIST ············ 6-23

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

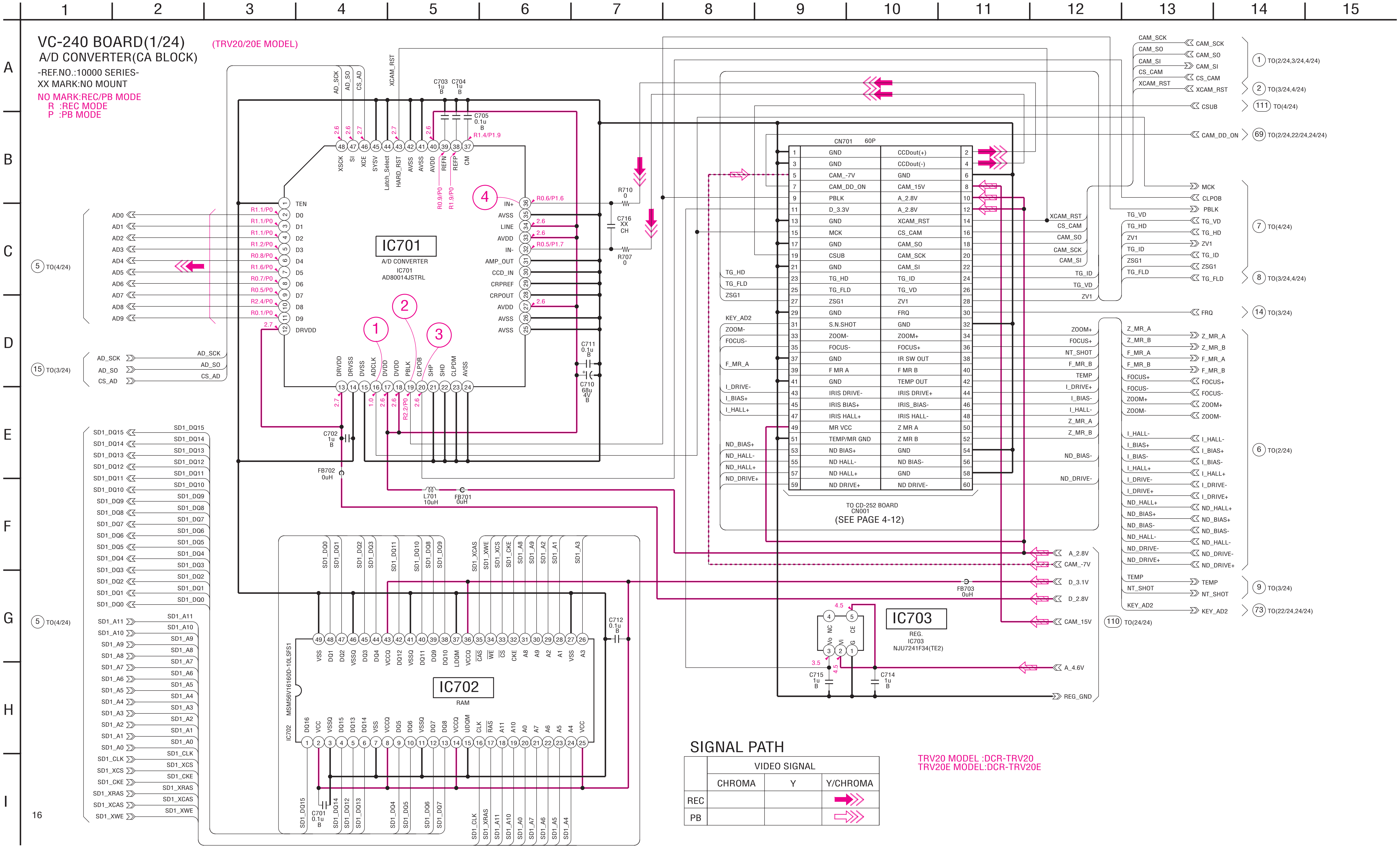
After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270˚C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

For Schematic Diagram
- Refer to page 4-67 for printed wiring board.
- Refer to page 4-116 for waveforms.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
A B C D E F G H I
VC-240 BOARD(1/24)
A/D CONVERTER(CA BLOCK)
(TRV20/20E MODEL)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC701
A/D CONVERTER
IC701
AD80014JSTRL
IC702
RAM
IC702 MSM56V16160D-10LSFS1
IC703
REG.
IC703
NJU7241F34(TE2)
CN701 60P
TO CD-252 BOARD
CN001
(SEE PAGE 4-12)
TEN D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 DRVDD
XSCK SI XCE SYSV Latch_Select HARD_RST AVSS AVSS AVDD REFN REFP CM
IN+ AVSS LINE AVDD IN- AMP_OUT CCD_IN CRPREF CRPOUT AVDD AVSS AVSS
DRVDD DRVSS DVSS ADCLK DVDD DVDD PBLK CLPOB SHP SHD CLPDM AVSS
C703 1u B
C704 1u B
C705 0.1u B
C702 1u B
C711 0.1u B
C710 68u 4V B
C712 0.1u B
C701 0.1u B
C715 1u B
C714 1u B
C716 XX CH
R710 0
R707 0
FB702 0uH
FB701 0uH
FB703 0uH
L701 10uH
1 TO(2/24,3/24,4/24)
2 TO(3/24,4/24)
111 TO(4/24)
69 TO(2/24,22/24,24/24)
7 TO(4/24)
8 TO(3/24,4/24)
14 TO(3/24)
6 TO(2/24)
9 TO(3/24)
73 TO(22/24,24/24)
110 TO(24/24)
5 TO(4/24)
15 TO(3/24)
CAM_SCK CAM_SO CAM_SI CS_CAM XCAM_RST CSUB CAM_DD_ON
MCK CLPOB PBLK TG_VD TG_HD ZV1 TG_ID ZSG1 TG_FLD FRQ
Z_MR_A Z_MR_B F_MR_A F_MR_B FOCUS+ FOCUS- ZOOM+ ZOOM-
I_HALL- I_BIAS+ I_BIAS- I_HALL+ I_DRIVE- I_DRIVE+ ND_HALL+ ND_BIAS+ ND_BIAS- ND_HALL- ND_DRIVE- ND_DRIVE+
A_2.8V CAM_-7V D_3.1V D_2.8V CAM_15V A_4.6V REG_GND
TEMP NT_SHOT KEY_AD2
AD0 AD1 AD2 AD3 AD4 AD5 AD6 AD7 AD8 AD9
AD_SCK AD_SO CS_AD
SD1_DQ0 – SD1_DQ15
SD1_A0 – SD1_A11
SD1_CLK SD1_XCS SD1_CKE SD1_XRAS SD1_XCAS SD1_XWE
16

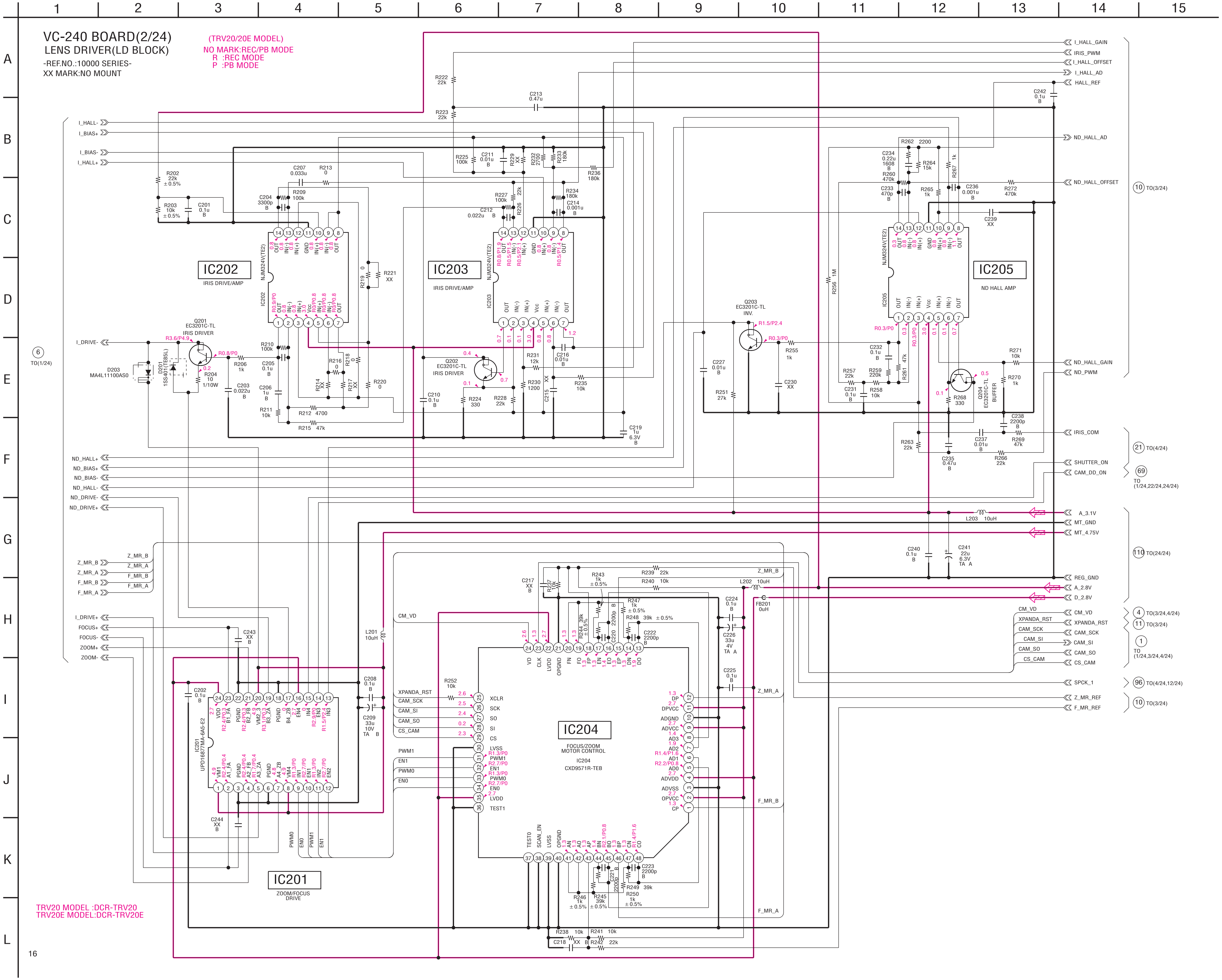
	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC			➡
PB			⇨

SIGNAL PATH

TRV20 MODEL :DCR-TRV20
TRV20E MODEL:DCR-TRV20E

For Schematic Diagram

- Refer to page 4-67 for printed wiring board.


1
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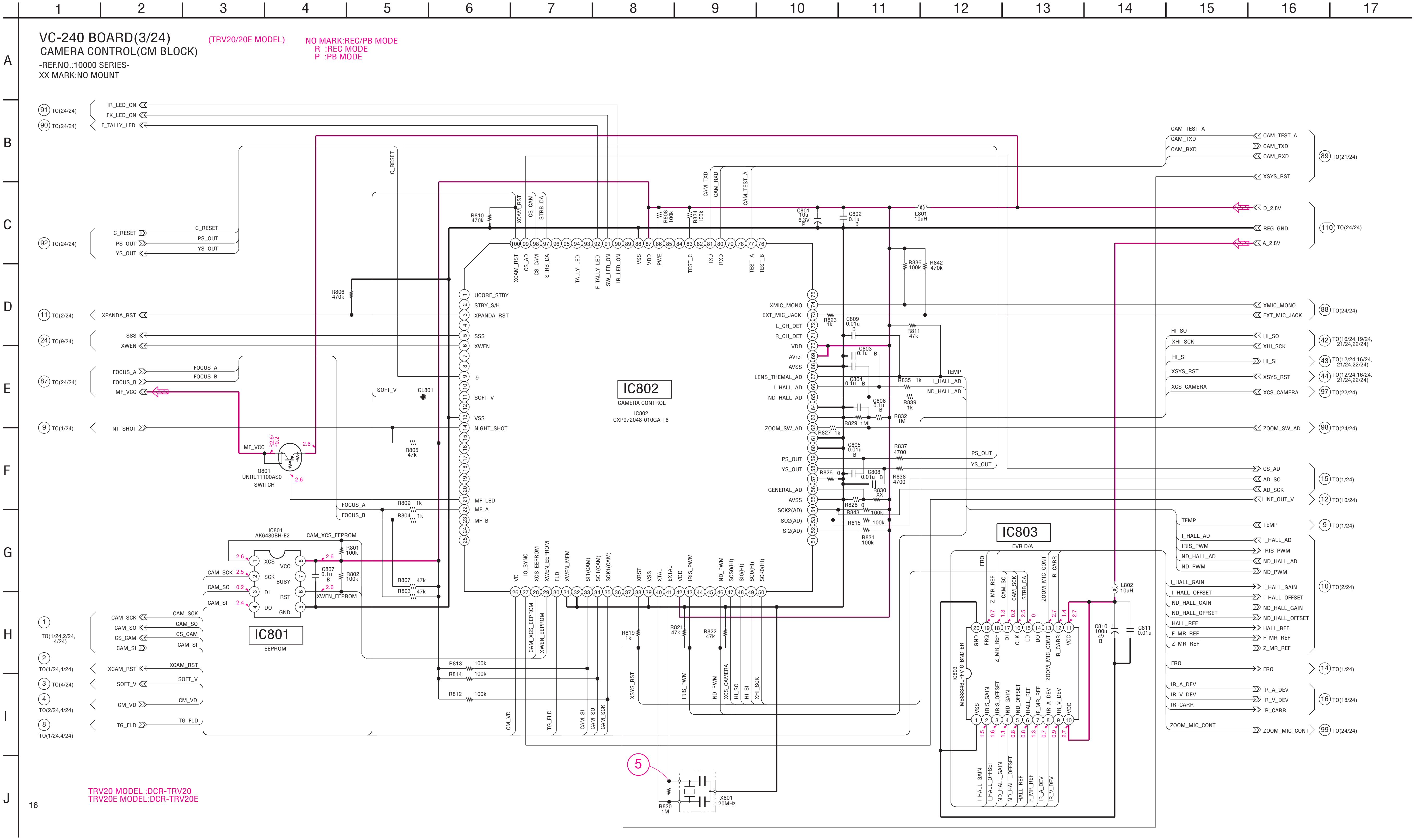
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
K
L
VC-240 BOARD(2/24)
LENS DRIVER(LD BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
(TRV20/20E MODEL)
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC202
IRIS DRIVE/AMP
NJM3244V(TE2)
IC203
IRIS DRIVE/AMP
IC205
ND HALL AMP
NJM324V(TE2)
IC204
FOCUS/ZOOM
MOTOR CONTROL
CXD9571R-TEB
IC201
ZOOM/FOCUS
DRIVE
UPD16877MA-6A5-E2
Q201
EC3201C-TL
IRIS DRIVER
Q202
EC3201C-TL
IRIS DRIVER
Q203
EC3201C-TL
INV.
Q204
EC3201C-TL
BUFFER
D201
1SS401(TE85L)
D203
MA4L11100AS0
I_HALL-
I_BIAS+
I_BIAS-
I_HALL+
I_DRIVE-
ND_HALL+
ND_BIAS+
ND_BIAS-
ND_HALL-
ND_DRIVE-
ND_DRIVE+
Z_MR_B
Z_MR_A
F_MR_B
F_MR_A
I_DRIVE+
FOCUS+
FOCUS-
ZOOM+
ZOOM-
I_HALL_GAIN
IRIS_PWM
I_HALL_OFFSET
I_HALL_AD
HALL_REF
ND_HALL_AD
ND_HALL_OFFSET
ND_HALL_GAIN
ND_PWM
IRIS_COM
SHUTTER_ON
CAM_DD_ON
A_3.1V
MT_GND
MT_4.75V
REG_GND
A_2.8V
D_2.8V
CM_VD
XPANDA_RST
CAM_SCK
CAM_SI
CAM_SO
CS_CAM
SPCK_1
Z_MR_REF
F_MR_REF
6 TO(1/24)
10 TO(3/24)
21 TO(4/24)
69 TO (1/24,22/24,24/24)
110 TO(24/24)
4 TO(3/24,4/24)
11 TO(3/24)
1 TO (1/24,3/24,4/24)
96 TO(4/24,12/24)
10 TO(3/24)
L201 10uH
L202 10uH
L203 10uH
FB201 0uH
PWM0
EN0
PWM1
EN1
XCLR
SCK
SO
SI
CS
LVSS
LVDD
TEST1
DPVCC
ADGND
ADVCC
AD3
AD2
AD1
AD0
ADVDD
ADVSS
OPVCC
CP
TRV20 MODEL :DCR-TRV20
TRV20E MODEL:DCR-TRV20E
16

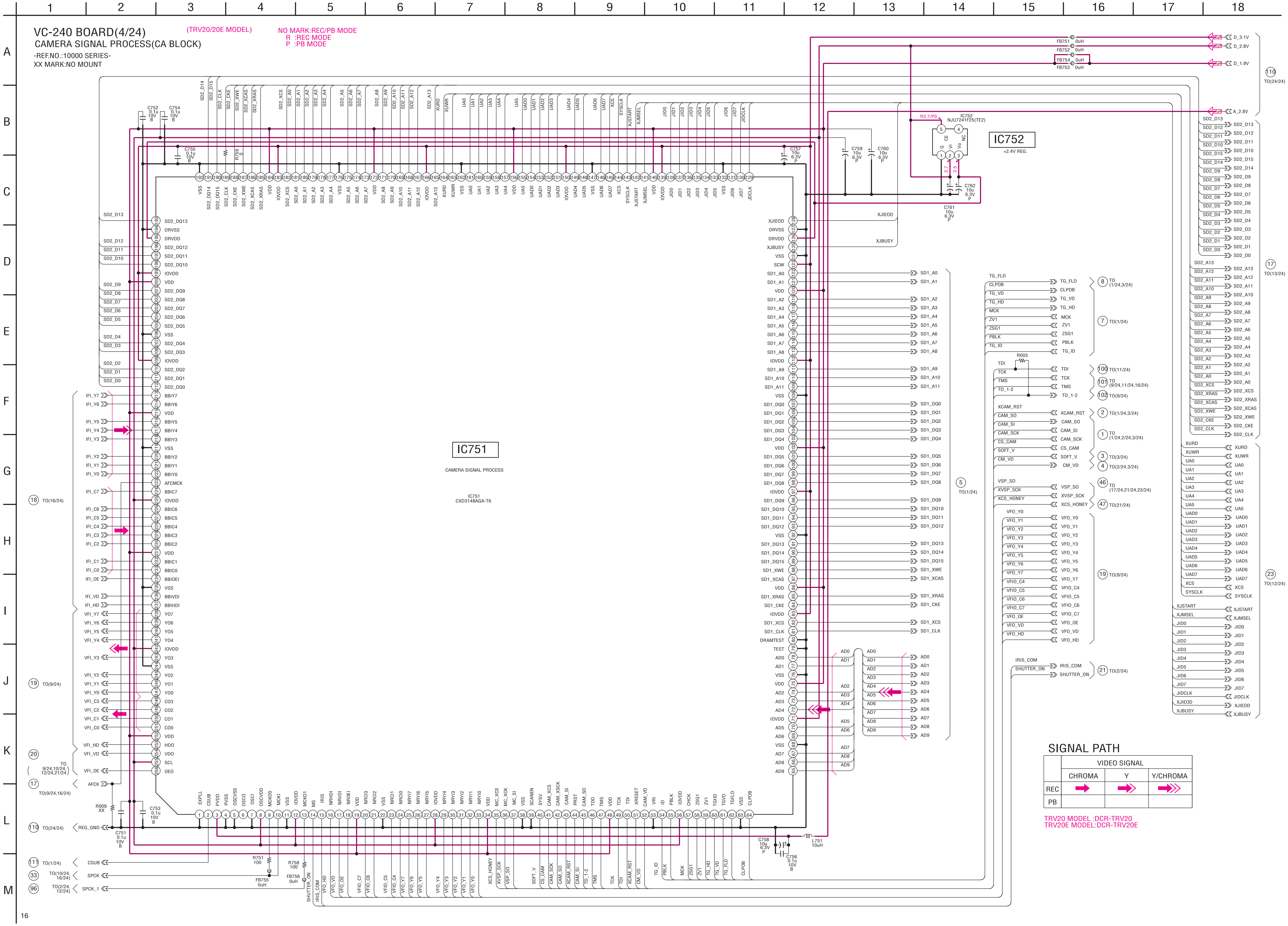
LENS DRIVER
VC-240 (2/24)

For Schematic Diagram
- Refer to page 4-67 for printed wiring board.
- Refer to page 4-116 for waveform.


VC-240 BOARD(3/24)
CAMERA CONTROL(CM BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
(TRV20/20E MODEL)
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC802
CAMERA CONTROL
IC802
CXP972048-010GA-T6
IC801
EEPROM
IC801
AK6480BH-E2
IC803
EVR D/A
IC803
MB88346LPFV-G-BND-ER
Q801
UNRL11100AS0
SWITCH
X801
20MHz
L801
10uH
L802
10uH
C810
100u
4V
B
C811
0.01u
C801
10u
6.3V
P
C802
0.1u
B
CAMERA_TXD
CAM_RXD
CAM_TEST_A
XSYS_RST
D_2.8V
REG_GND
A_2.8V
IR_LED_ON
FK_LED_ON
F_TALLY_LED
C_RESET
PS_OUT
YS_OUT
XPANDA_RST
SSS
XWEN
FOCUS_A
FOCUS_B
MF_VCC
NT_SHOT
CAM_SCK
CAM_SO
CS_CAM
CAM_SI
XCAM_RST
SOFT_V
CM_VD
TG_FLD
XMIC_MONO
EXT_MIC_JACK
HI_SO
XHI_SCK
HI_SI
XSYS_RST
XCS_CAMERA
ZOOM_SW_AD
CS_AD
AD_SO
AD_SCK
LINE_OUT_V
TEMP
I_HALL_AD
IRIS_PWM
ND_HALL_AD
ND_PWM
I_HALL_GAIN
I_HALL_OFFSET
ND_HALL_GAIN
ND_HALL_OFFSET
HALL_REF
F_MR_REF
Z_MR_REF
FRQ
IR_A_DEV
IR_V_DEV
IR_CARR
ZOOM_MIC_CONT
TO(24/24)
TO(21/24)
TO(2/24)
TO(9/24)
TO(1/24)
TO(1/24,2/24,4/24)
TO(1/24,4/24)
TO(4/24)
TO(2/24,4/24)
TO(16/24,19/24,21/24,22/24)
TO(12/24,16/24,21/24,22/24)
TO(22/24)
TO(10/24)
TO(18/24)
5
TRV20 MODEL :DCR-TRV20
TRV20E MODEL:DCR-TRV20E
16

For Schematic Diagram

- Refer to page 4-67 for printed wiring board.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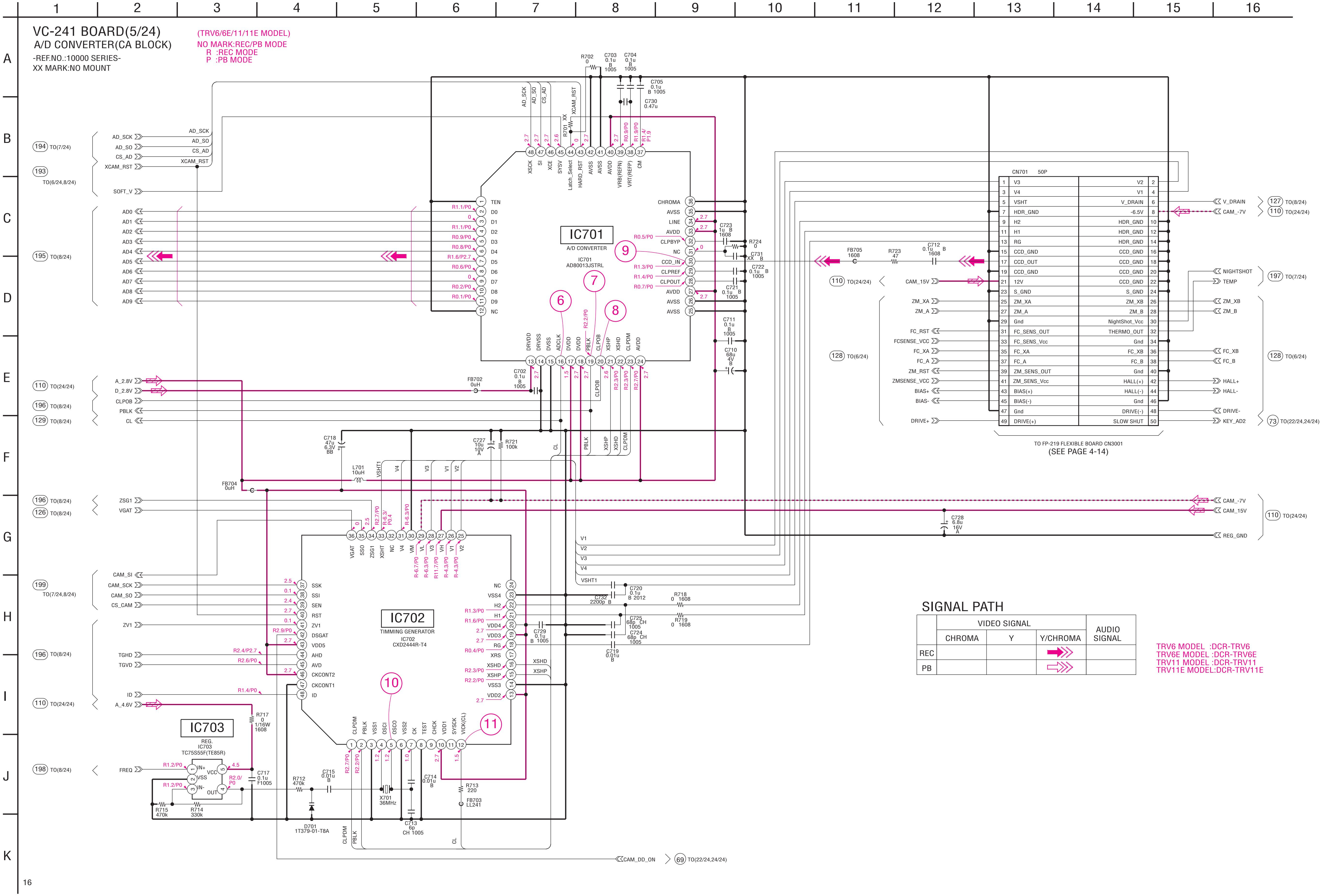
14
15
16
17
18
A
B
C
D
E
F
G
H
I
J
K
L
M
VC-240 BOARD(4/24)
CAMERA SIGNAL PROCESS(CA BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
(TRV20/20E MODEL)
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC751
CAMERA SIGNAL PROCESS
IC751
CXD3148AGA-T6
IC752
+2.4V REG.
IC752
NJU7241F25(TE2)
R2.7/P0
D_3.1V
D_2.8V
D_1.9V
A_2.8V
FB751 0uH
FB752 0uH
FB754 0uH
FB753 0uH
C752 0.1u 10V B
C754 0.1u 10V B
C755 0.1u 10V B
R759 0
C757 10u 6.3V P
C759 10u 6.3V P
C760 10u 6.3V P
C761 10u 6.3V P
C762 10u 6.3V P
C751 0.1u 10V B
C753 0.1u 10V B
R009 XX
R751 100
R758 100
FB755 0uH
FB756 0uH
C758 10u 6.3V P
C756 0.1u 10V B
L751 10uH
R003
XJIEOD
XJBUSY
TO(24/24)
TO(13/24)
TO(12/24)
TO(1/24,3/24)
TO(1/24)
TO(11/24)
TO(9/24,11/24,16/24)
TO(9/24)
TO(1/24,3/24)
TO(1/24,2/24,3/24)
TO(3/24)
TO(2/24,3/24)
TO(17/24,21/24,23/24)
TO(21/24)
TO(9/24)
TO(2/24)
TO(16/24)
TO(9/24)
TO(9/24,10/24,12/24,21/24)
TO(9/24,16/24)
TO(24/24)
TO(1/24)
TO(10/24,16/24)
TO(2/24,12/24)
REG_GND
CSUB
SPCK
SPCK_1
AFCK
IRIS_COM
SHUTTER_ON
16
SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
REC
PB
TRV20 MODEL :DCR-TRV20
TRV20E MODEL:DCR-TRV20E

For Schematic Diagram

- Refer to page 4-71 for printed wiring board.
- Refer to page 4-116 for waveforms.


VC-241 BOARD(5/24)
A/D CONVERTER(CA BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
(TRV6/6E/11/11E MODEL)
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
K
IC701
A/D CONVERTER
IC701
AD80013JSTRL
IC702
TIMMING GENERATOR
IC702
CXD2444R-T4
IC703
REG.
IC703
TC75S55F(TE85R)
CN701 50P
TO FP-219 FLEXIBLE BOARD CN3001
(SEE PAGE 4-14)
AD_SCK
AD_SO
CS_AD
XCAM_RST
SOFT_V
AD0
AD1
AD2
AD3
AD4
AD5
AD6
AD7
AD8
AD9
A_2.8V
D_2.8V
CLPOB
PBLK
CL
ZSG1
VGAT
CAM_SI
CAM_SCK
CAM_SO
CS_CAM
ZV1
TGHD
TGVD
ID
A_4.6V
FREQ
CAM_DD_ON
TO(7/24)
TO(6/24,8/24)
TO(8/24)
TO(24/24)
TO(7/24,8/24)
TO(22/24,24/24)
TO(6/24)
V_DRAIN
CAM_-7V
CAM_15V
NIGHTSHOT
TEMP
ZM_XB
ZM_B
ZM_XA
ZM_A
FC_RST
FCSENSE_VCC
FC_XA
FC_A
FC_XB
FC_B
ZM_RST
ZMSENSE_VCC
BIAS+
BIAS-
HALL+
HALL-
DRIVE-
DRIVE+
KEY_AD2
REG_GND
V1
V2
V3
V4
VSHT1
XSHD
XSHP
TEN
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
NC
CHROMA
AVSS
LINE
AVDD
CLPBYP
CCD_IN
CLPREF
CLPOUT
XSCK
SI
XCE
SYSV
Latch_Select
HARD_RST
VRB(REFN)
VRT(REFP)
CM
DRVDD
DRVSS
DVSS
ADCLK
DVDD
CLPDM
SSK
SSI
SEN
RST
DSGAT
VDD5
AHD
AVD
CKCONT2
CKCONT1
VSS4
H2
H1
VDD4
VDD3
RG
XRS
VSS3
VDD2
VGAT
SSO
VM
VL
VH
OSCI
OSCO
VSS2
CK
TEST
CHCK
VDD1
SYSCK
VICK(CL)
VSS1
IN+
IN-
VCC
VSS
OUT
V3
V4
VSHT
HDR_GND
H2
H1
RG
CCD_GND
CCD_OUT
12V
S_GND
ZM_XA
ZM_A
Gnd
FC_SENS_OUT
FC_SENS_Vcc
FC_XA
FC_A
ZM_SENS_OUT
ZM_SENS_Vcc
BIAS(+)
BIAS(-)
DRIVE(+)
V2
V1
V_DRAIN
-6.5V
ZM_XB
ZM_B
NightShot_Vcc
THERMO_OUT
FC_XB
FC_B
HALL(+)
HALL(-)
DRIVE(-)
SLOW SHUT
R702 0
C703 0.1u B 1005
C704 0.1u B 1005
C705 0.1u B 1005
C730 0.47u
R701 XX
C723 1u B 1608
R724 0
C731 XX
C722 0.1u B 1005
C721 0.1u B 1005
C711 0.1u B 1005
C710 68u 4V B
FB705 1608
R723 47
C712 0.1u B 1608
C702 0.1u B 1005
FB702 0uH
C718 47u 6.3V BB
C727 10u 10V A
R721 100k
L701 10uH
FB704 0uH
C728 6.8u 16V A
C720 0.1u B 2012
C732 2200p B
R718 0 1608
R719 0 1608
C725 68p CH 1005
C724 68p CH 1005
C729 0.1u B 1005
C719 0.01u B
R717 0 1/16W 1608
C717 0.1u F1005
R712 470k
C715 0.01u B
X701 36MHz
C714 0.01u B
C713 6p CH 1005
R713 220
FB703 LL241
D701 1T379-01-T8A
R715 470k
R714 330k
6
7
8
9
10
11
16

SIGNAL PATH

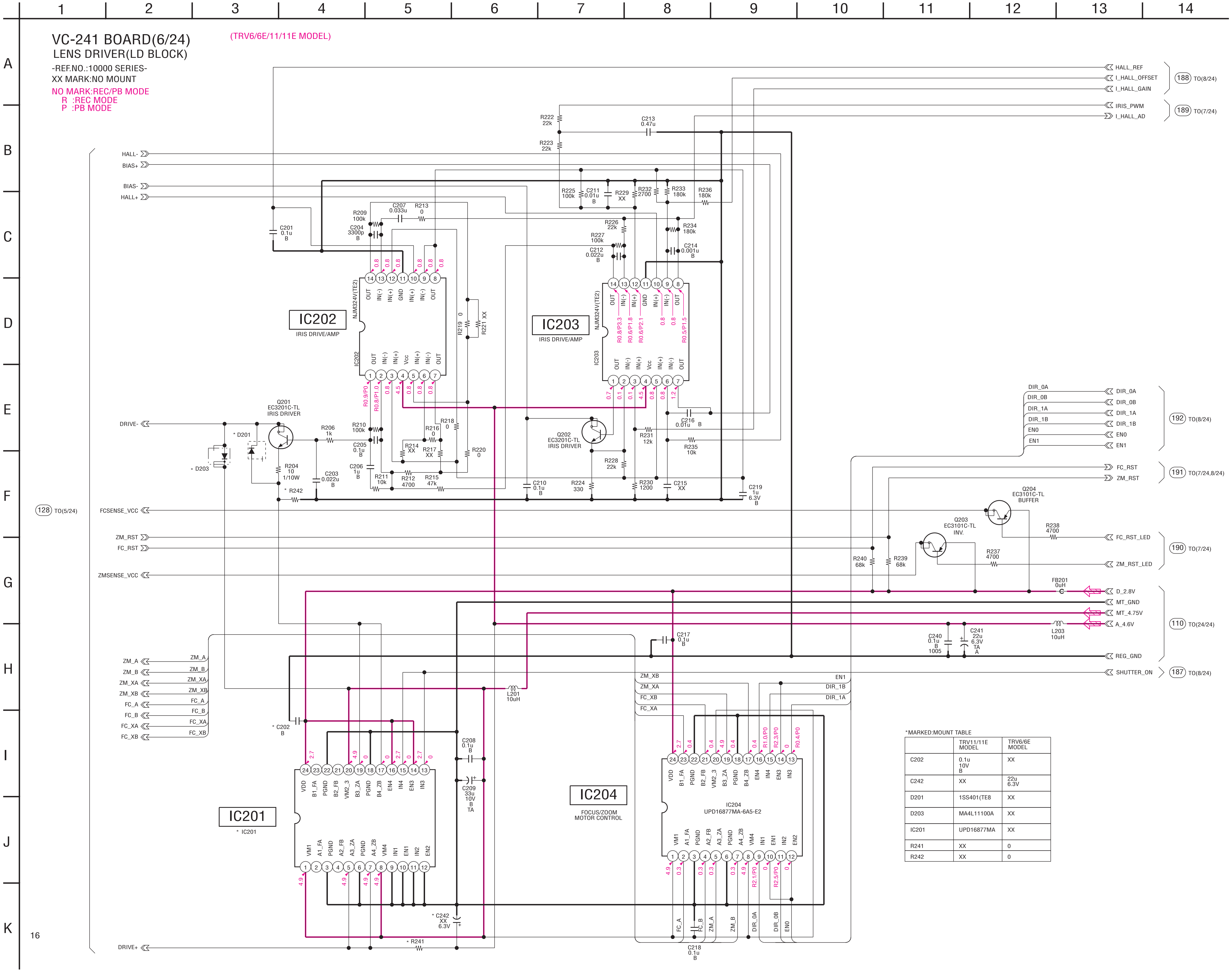
	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC			➡	
PB			⇨	

TRV6 MODEL :DCR-TRV6
TRV6E MODEL :DCR-TRV6E
TRV11 MODEL :DCR-TRV11
TRV11E MODEL:DCR-TRV11E

A/D CONVERTER
VC-241 (5/24)

For Schematic Diagram

- Refer to page 4-71 for printed wiring board.



VC-241 BOARD(6/24)
LENS DRIVER(LD BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE

(TRV6/6E/11/11E MODEL)

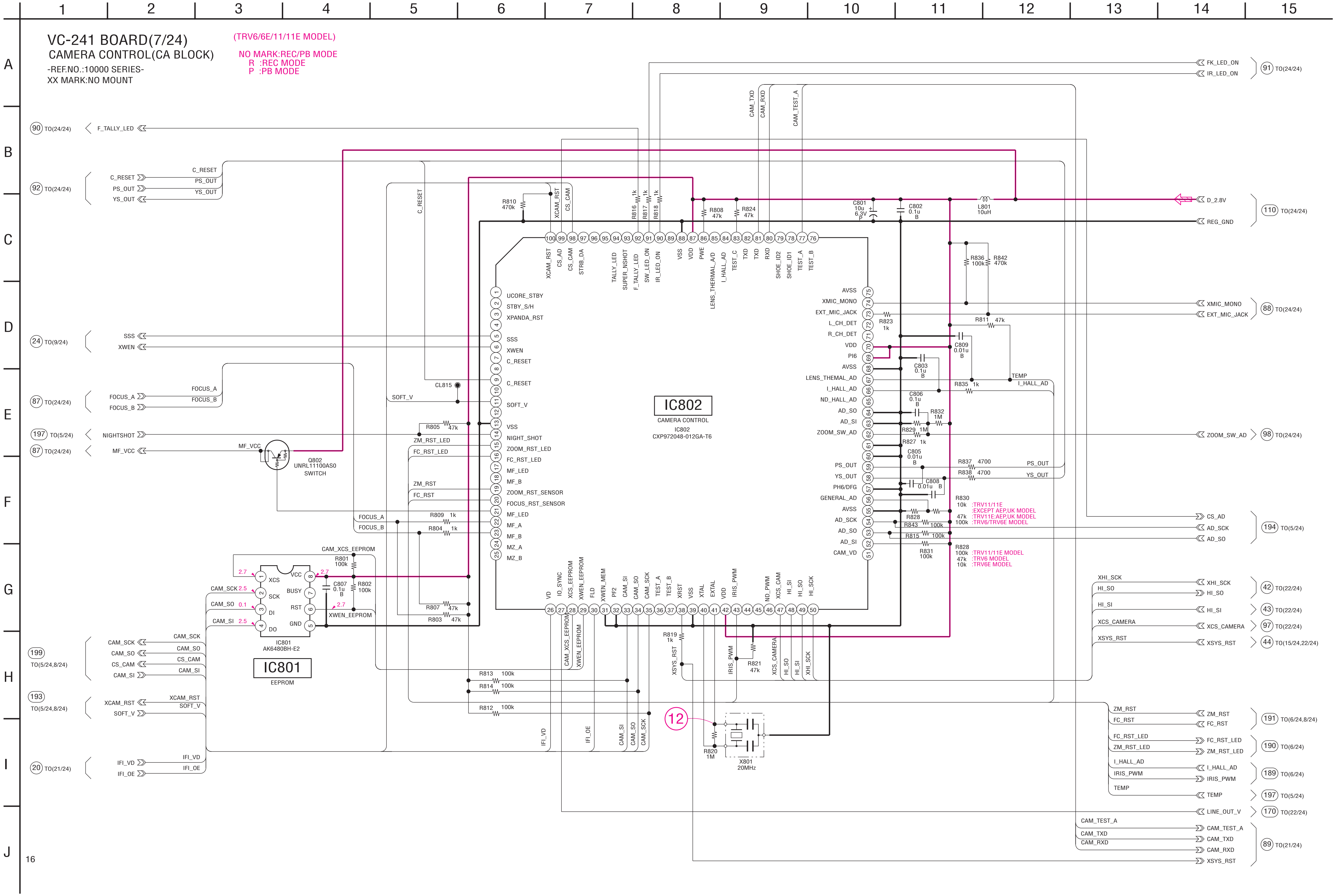
1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
K
HALL-
BIAS+
BIAS-
HALL+
HALL_REF
I_HALL_OFFSET
I_HALL_GAIN
188 TO(8/24)
IRIS_PWM
I_HALL_AD
189 TO(7/24)
IC202
IRIS DRIVE/AMP
NJM3324V(TE2)
IC203
IRIS DRIVE/AMP
NJM3324V(TE2)
Q201
EC3201C-TL
IRIS DRIVER
Q202
EC3201C-TL
IRIS DRIVER
D201
D203
DRIVE-
128 TO(5/24)
FCSENSE_VCC
ZM_RST
FC_RST
ZMSENSE_VCC
DIR_0A
DIR_0B
DIR_1A
DIR_1B
EN0
EN1
192 TO(8/24)
FC_RST
ZM_RST
191 TO(7/24,8/24)
Q204
EC3101C-TL
BUFFER
Q203
EC3101C-TL
INV.
FC_RST_LED
ZM_RST_LED
190 TO(7/24)
FB201
0uH
D_2.8V
MT_GND
MT_4.75V
A_4.6V
110 TO(24/24)
L203
10uH
REG_GND
SHUTTER_ON
187 TO(8/24)
ZM_A
ZM_B
ZM_XA
ZM_XB
FC_A
FC_B
FC_XA
FC_XB
L201
10uH
IC201
IC204
FOCUS/ZOOM
MOTOR CONTROL
UPD16877MA-6A5-E2
DRIVE+
R241
R242
C242
XX
6.3V
C202
C208
0.1u
C209
33u
10V
C218
0.1u
C217
0.1u
C240
0.1u
1005
C241
22u
6.3V
TA
R240
68k
R239
68k
R237
4700
R238
4700
VDD
B1_FA
PGND
B2_FB
VM2_3
B3_ZA
B4_ZB
EN4
IN4
EN3
IN3
VM1
A1_FA
A2_FB
A3_ZA
A4_ZB
VM4
IN1
EN1
IN2
EN2
16

*MARKED:MOUNT TABLE

	TRV11/11E MODEL	TRV6/6E MODEL
C202	0.1u 10V B	XX
C242	XX	22u 6.3V
D201	1SS401(TE8	XX
D203	MA4L11100A	XX
IC201	UPD16877MA	XX
R241	XX	0
R242	XX	0

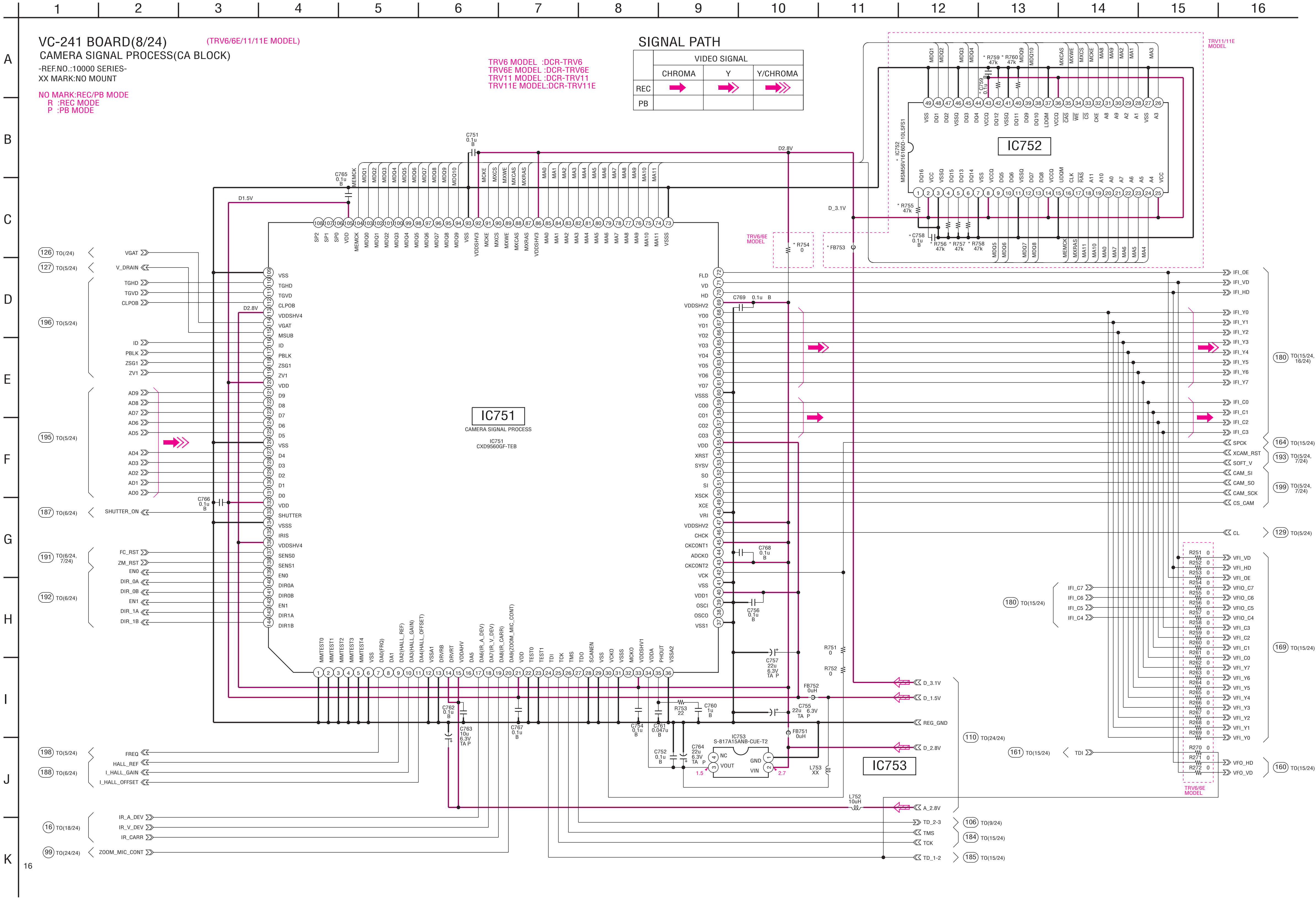
For Schematic Diagram

- Refer to page 4-71 for printed wiring board.
- Refer to page 4-116 for waveform.


VC-241 BOARD(7/24)
CAMERA CONTROL(CA BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
(TRV6/6E/11/11E MODEL)
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
16
IC802
CAMERA CONTROL
IC802
CXP972048-012GA-T6
IC801
EEPROM
IC801
AK6480BH-E2
Q802
UNRL11100AS0
SWITCH
X801
20MHz
L801
10uH
C801
10u
6.3V
C802
0.1u
C803
0.1u
C805
0.01u
C806
0.1u
C807
0.1u
C808
0.01u
C809
0.01u
R801
100k
R802
100k
R803
47k
R804
1k
R805
47k
R807
47k
R808
47k
R809
1k
R810
470k
R811
47k
R812
100k
R813
100k
R814
100k
R815
100k
R816
1k
R817
1k
R818
1k
R819
1k
R820
1M
R821
47k
R823
1k
R824
47k
R827
1k
R828
R829
1M
R830
R831
100k
R832
1M
R835
1k
R836
100k
R837
4700
R838
4700
R842
470k
R843
100k
CL815
10k :TRV11/11E
:EXCEPT AEP,UK MODEL
47k :TRV11E:AEP,UK MODEL
100k :TRV6/TRV6E MODEL
100k :TRV11/11E MODEL
47k :TRV6 MODEL
10k :TRV6E MODEL
F_TALLY_LED
C_RESET
PS_OUT
YS_OUT
SSS
XWEN
FOCUS_A
FOCUS_B
NIGHTSHOT
MF_VCC
CAM_SCK
CAM_SO
CS_CAM
CAM_SI
XCAM_RST
SOFT_V
IFI_VD
IFI_OE
FK_LED_ON
IR_LED_ON
D_2.8V
REG_GND
XMIC_MONO
EXT_MIC_JACK
ZOOM_SW_AD
CS_AD
AD_SCK
AD_SO
XHI_SCK
HI_SO
HI_SI
XCS_CAMERA
XSYS_RST
ZM_RST
FC_RST
FC_RST_LED
ZM_RST_LED
I_HALL_AD
IRIS_PWM
TEMP
LINE_OUT_V
CAM_TEST_A
CAM_TXD
CAM_RXD
CAM_XCS_EEPROM
XWEN_EEPROM
UCORE_STBY
STBY_S/H
XPANDA_RST
VSS
NIGHT_SHOT
ZOOM_RST_LED
MF_LED
MF_A
MF_B
ZOOM_RST_SENSOR
FOCUS_RST_SENSOR
MZ_A
MZ_B
AVSS
L_CH_DET
R_CH_DET
VDD
PI6
LENS_THEMAL_AD
ND_HALL_AD
AD_SI
PH6/DFG
GENERAL_AD
CAM_VD
VD
IO_SYNC
XCS_EEPROM
XWEN_EEPROM
FLD
XWEN_MEM
PF2
TEST_A
TEST_B
XRST
XTAL
EXTAL
ND_PWM
XCS_CAM
XCAM_RST
CS_AD
CS_CAM
STRB_DA
TALLY_LED
SUPER_NSHOT
F_TALLY_LED
SW_LED_ON
IR_LED_ON
PWE
LENS_THERMAL_AD
TEST_C
TXD
RXD
SHOE_ID2
SHOE_ID1
XCS
SCK
DI
DO
BUSY
RST
GND
VCC
CAM_XCS_EEPROM
(90) TO(24/24)
(92) TO(24/24)
(24) TO(9/24)
(87) TO(24/24)
(197) TO(5/24)
(87) TO(24/24)
(199) TO(5/24,8/24)
(193) TO(5/24,8/24)
(20) TO(21/24)
(91) TO(24/24)
(110) TO(24/24)
(88) TO(24/24)
(98) TO(24/24)
(194) TO(5/24)
(42) TO(22/24)
(43) TO(22/24)
(97) TO(22/24)
(44) TO(15/24,22/24)
(191) TO(6/24,8/24)
(190) TO(6/24)
(189) TO(6/24)
(197) TO(5/24)
(170) TO(22/24)
(89) TO(21/24)
(12)

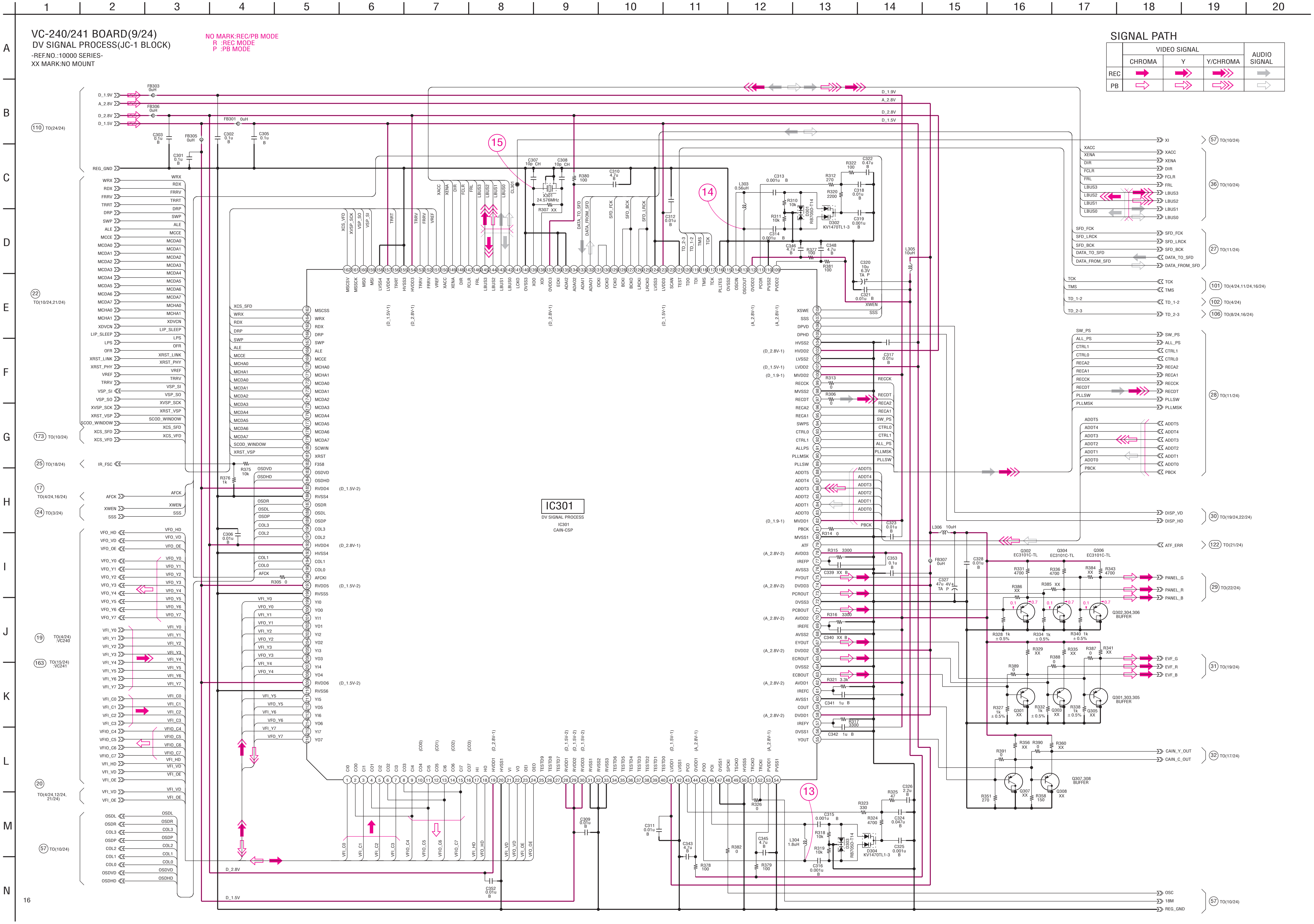
For Schematic Diagram

- Refer to page 4-71 for printed wiring board.

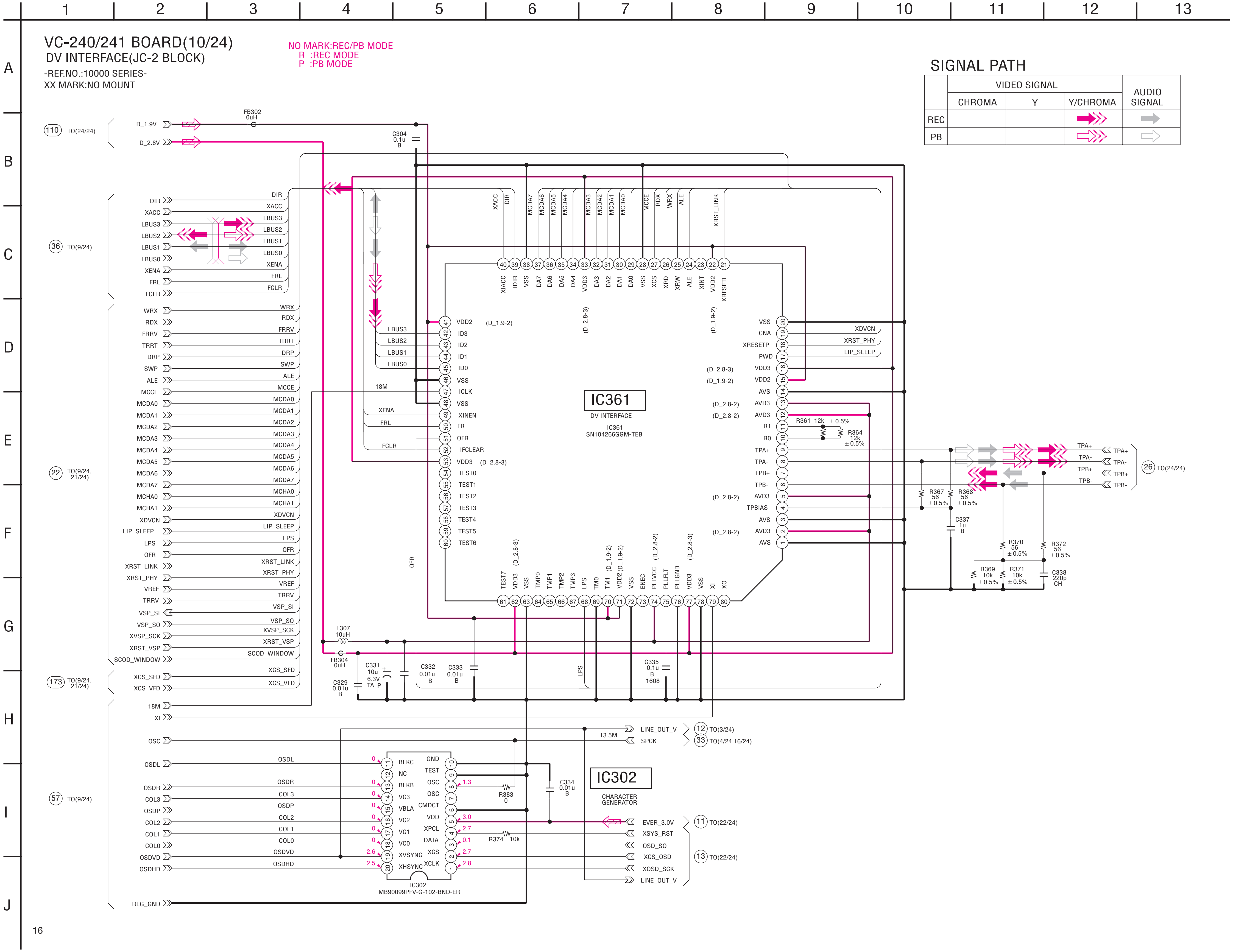

VC-241 BOARD(8/24)
(TRV6/6E/11/11E MODEL)
CAMERA SIGNAL PROCESS(CA BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
TRV6 MODEL :DCR-TRV6
TRV6E MODEL :DCR-TRV6E
TRV11 MODEL :DCR-TRV11
TRV11E MODEL:DCR-TRV11E
SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
REC
PB
IC751
CAMERA SIGNAL PROCESS
IC751
CXD9560GF-TEB
IC752
MSM56V16800-10LSFS1
IC753
S-817A15ANB-CUE-T2
TRV11/11E MODEL
TRV6/6E MODEL
D2.8V
D1.5V
D_3.1V
D_1.5V
REG_GND
D_2.8V
A_2.8V
TO(1/24)
TO(5/24)
TO(6/24)
TO(6/24, 7/24)
TO(18/24)
TO(24/24)
TO(15/24)
TO(15/24, 16/24)
TO(5/24, 7/24)
TO(9/24)
TO(24/24)
VGAT
V_DRAIN
TGHD
TGVD
CLPOB
ID
PBLK
ZSG1
ZV1
AD9
AD8
AD7
AD6
AD5
AD4
AD3
AD2
AD1
AD0
SHUTTER_ON
FC_RST
ZM_RST
EN0
DIR_0A
DIR_0B
EN1
DIR_1A
DIR_1B
FREQ
HALL_REF
I_HALL_GAIN
I_HALL_OFFSET
IR_A_DEV
IR_V_DEV
IR_CARR
ZOOM_MIC_CONT
IFI_OE
IFI_VD
IFI_HD
IFI_Y0
IFI_Y1
IFI_Y2
IFI_Y3
IFI_Y4
IFI_Y5
IFI_Y6
IFI_Y7
IFI_C0
IFI_C1
IFI_C2
IFI_C3
SPCK
XCAM_RST
SOFT_V
CAM_SI
CAM_SO
CAM_SCK
CS_CAM
CL
VFI_VD
VFI_HD
VFI_OE
VFIO_C7
VFIO_C6
VFIO_C5
VFIO_C4
VFI_C3
VFI_C2
VFI_C1
VFI_C0
VFI_Y7
VFI_Y6
VFI_Y5
VFI_Y4
VFI_Y3
VFI_Y2
VFI_Y1
VFI_Y0
VFO_HD
VFO_VD
IFI_C7
IFI_C6
IFI_C5
IFI_C4
TDI
TD_2-3
TMS
TCK
TD_1-2

For Schematic Diagram

- Refer to page 4-67/71 for printed wiring board.
- Refer to page 4-116 for waveforms.

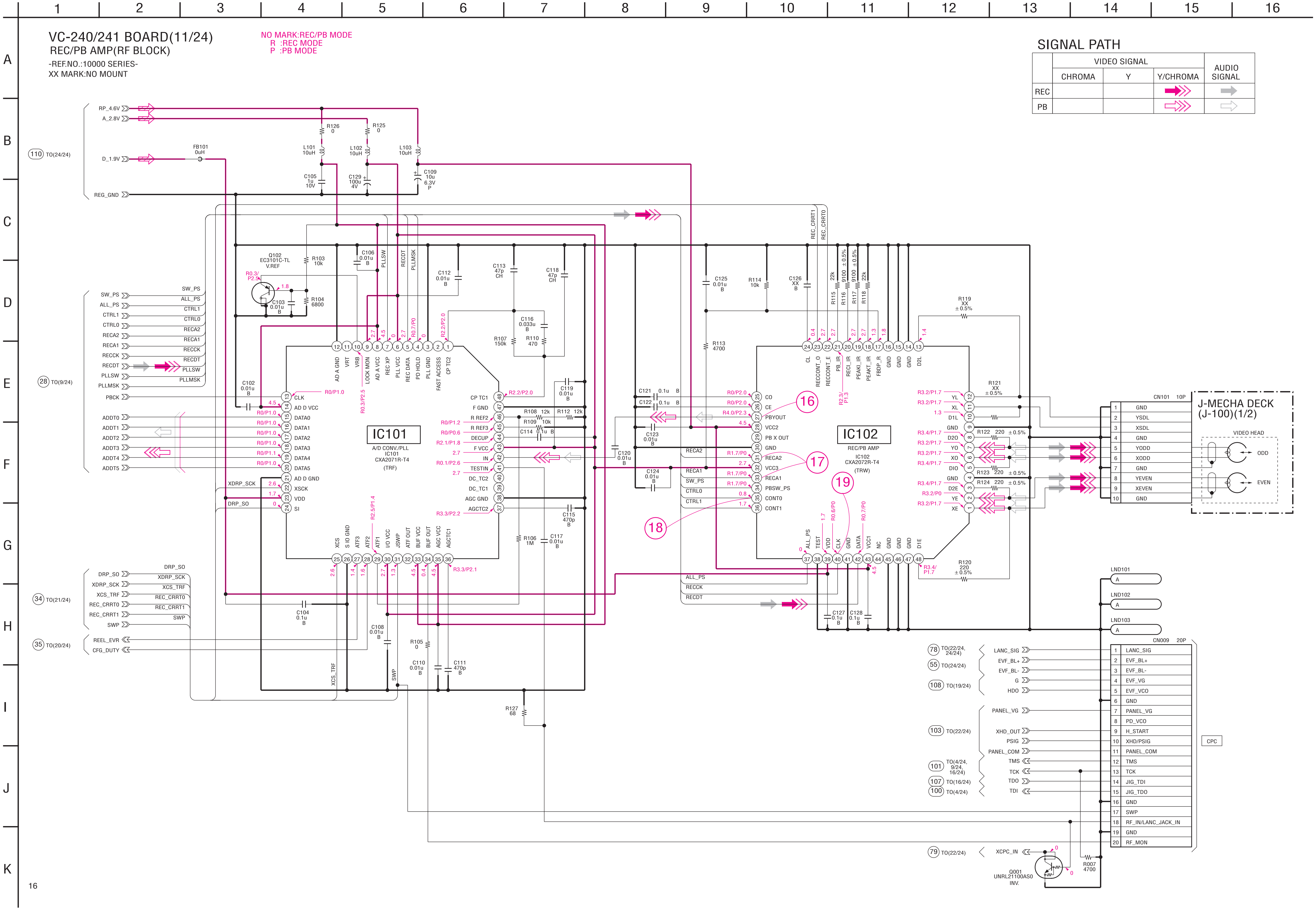

VC-240/241 BOARD(9/24)
DV SIGNAL PROCESS(JC-1 BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
AUDIO SIGNAL
REC
PB
IC301
DV SIGNAL PROCESS
IC301
CAIN-CSP
X301
24.576MHz
D302
KV1470TL1-3
D301
RB705D-T14
D304
KV1470TL1-3
D303
RB705D-T14
Q302,304,306
BUFFER
Q301,303,305
BUFFER
Q307,308
BUFFER
Q302 EC3101C-TL
Q304 EC3101C-TL
Q306 EC3101C-TL
FB303 0uH
FB306 0uH
FB301 0uH
FB305 0uH
FB307 0uH
L303 0.56uH
L305 10uH
L306 10uH
L304 1.8uH
D_1.9V
A_2.8V
D_2.8V
D_1.5V
REG_GND
(110) TO(24/24)
(22) TO(10/24,21/24)
(173) TO(10/24)
(25) TO(18/24)
(17) TO(4/24,16/24)
(24) TO(3/24)
(19) TO(4/24) :VC240
(163) TO(15/24) :VC241
(20) TO(4/24,12/24,21/24)
(57) TO(10/24)
(57) TO(10/24)
(36) TO(10/24)
(27) TO(11/24)
(101) TO(4/24,11/24,16/24)
(102) TO(4/24)
(106) TO(8/24,16/24)
(28) TO(11/24)
(30) TO(19/24,22/24)
(122) TO(21/24)
(29) TO(22/24)
(31) TO(19/24)
(32) TO(17/24)
(57) TO(10/24)
XI
XACC
XENA
DIR
FCLR
FRL
LBUS3
LBUS2
LBUS1
LBUS0
SFD_FCK
SFD_LRCK
SFD_BCK
DATA_TO_SFD
DATA_FROM_SFD
TCK
TMS
TD_1-2
TD_2-3
SW_PS
ALL_PS
CTRL1
CTRL0
RECA2
RECA1
RECCK
RECDT
PLLSW
PLLMSK
ADDT5
ADDT4
ADDT3
ADDT2
ADDT1
ADDT0
PBCK
DISP_VD
DISP_HD
ATF_ERR
PANEL_G
PANEL_R
PANEL_B
EVF_G
EVF_R
EVF_B
CAIN_Y_OUT
CAIN_C_OUT
OSC
18M
REG_GND
(15)
(14)
(13)
16

For Schematic Diagram
- Refer to page 4-67/71 for printed wiring board.


1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H I J
VC-240/241 BOARD(10/24)
DV INTERFACE(JC-2 BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
AUDIO SIGNAL
REC
PB
IC361
DV INTERFACE
IC361 SN104266GGM-TEB
IC302
CHARACTER GENERATOR
IC302 MB90099PFV-G-102-BND-ER
(110) TO(24/24)
D_1.9V
D_2.8V
FB302 0uH
C304 0.1u B
(36) TO(9/24)
DIR
XACC
LBUS3
LBUS2
LBUS1
LBUS0
XENA
FRL
FCLR
(22) TO(9/24, 21/24)
WRX
RDX
FRRV
TRRT
DRP
SWP
ALE
MCCE
MCDA0
MCDA1
MCDA2
MCDA3
MCDA4
MCDA5
MCDA6
MCDA7
MCHA0
MCHA1
XDVCN
LIP_SLEEP
LPS
OFR
XRST_LINK
XRST_PHY
VREF
TRRV
VSP_SI
VSP_SO
XVSP_SCK
XRST_VSP
SCOD_WINDOW
(173) TO(9/24, 21/24)
XCS_SFD
XCS_VFD
18M
XI
OSC
(57) TO(9/24)
OSDL
OSDR
COL3
OSDP
COL2
COL1
COL0
OSDVD
OSDHD
REG_GND
VDD2
ID3
ID2
ID1
ID0
VSS
ICLK
XINEN
FR
OFR
IFCLEAR
VDD3
TEST0
TEST1
TEST2
TEST3
TEST4
TEST5
TEST6
XIACC
IDIR
DA7
DA6
DA5
DA4
DA3
DA2
DA1
DA0
XCS
XRD
XRW
XINT
XRESETL
CNA
XRESETP
PWD
AVS
AVD3
R1
R0
TPA+
TPA-
TPB+
TPB-
TPBIAS
TEST7
TMP0
TMP1
TMP2
TMP3
TM0
TM1
ENEC
PLLVCC
PLLFLT
PLLGND
XO
(D_1.9-2)
(D_2.8-3)
(D_2.8-2)
R361 12k ±0.5%
R364 12k ±0.5%
R367 56 ±0.5%
R368 56 ±0.5%
C337 1u B
R370 56 ±0.5%
R372 56 ±0.5%
R369 10k ±0.5%
R371 10k ±0.5%
C338 220p CH
(26) TO(24/24)
L307 10uH
FB304 0uH
C329 0.01u B
C331 10u 6.3V TA P
C332 0.01u B
C333 0.01u B
C335 0.1u B 1608
LINE_OUT_V
SPCK
13.5M
(12) TO(3/24)
(33) TO(4/24,16/24)
BLKC
NC
BLKB
VC3
VBLA
VC2
VC1
VC0
XVSYNC
XHSYNC
GND
TEST
CMDCT
VDD
XPCL
DATA
XCLK
C334 0.01u B
R383 0
R374 10k
EVER_3.0V
XSYS_RST
OSD_SO
XCS_OSD
XOSD_SCK
(11) TO(22/24)
(13) TO(22/24)
1.3
3.0
2.7
0.1
2.6
2.5
2.8
16

For Schematic Diagram

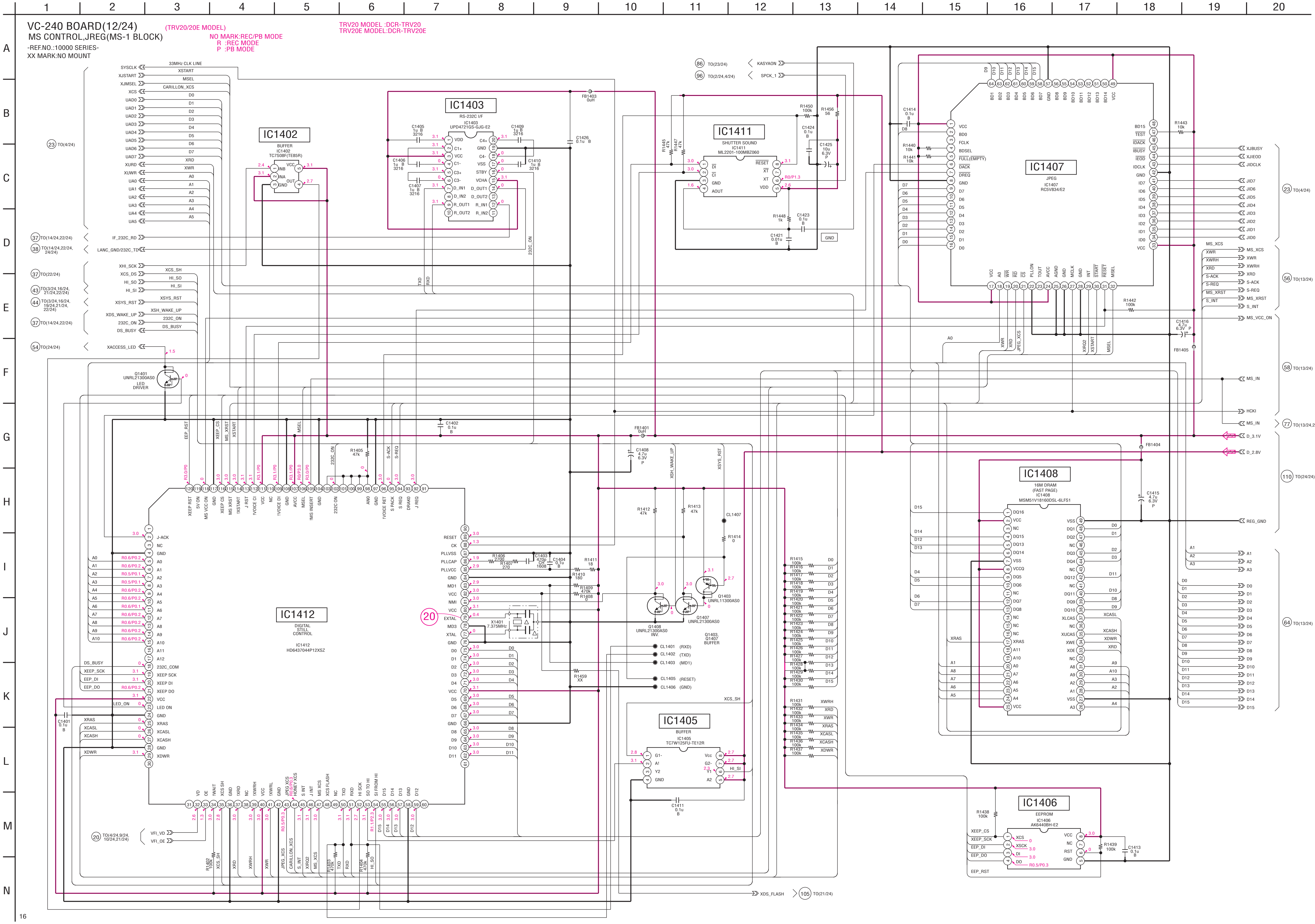
- Refer to page 4-67/71 for printed wiring board.
- Refer to page 4-117 for waveforms.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
A B C D E F G H I J K
VC-240/241 BOARD(11/24)
REC/PB AMP(RF BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
SIGNAL PATH
IC101
A/D CONV/PLL
IC101
CXA2071R-T4
(TRF)
IC102
REC/PB AMP
IC102
CXA2072R-T4
(TRW)
J-MECHA DECK
(J-100)(1/2)
VIDEO HEAD
ODD
EVEN
CN101 10P
CN009 20P
CPC
Q102 EC3101C-TL V.REF
Q001 UNRL21100AS0 INV.
FB101 0uH
L101 10uH
L102 10uH
L103 10uH
LND101
LND102
LND103
(110) TO(24/24)
(28) TO(9/24)
(34) TO(21/24)
(35) TO(20/24)
(78) TO(22/24, 24/24)
(55) TO(24/24)
(108) TO(19/24)
(103) TO(22/24)
(101) TO(4/24, 9/24, 16/24)
(107) TO(16/24)
(100) TO(4/24)
(79) TO(22/24)
16
17
18
19
16

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC			⇛	⇨
PB			⇛	⇨

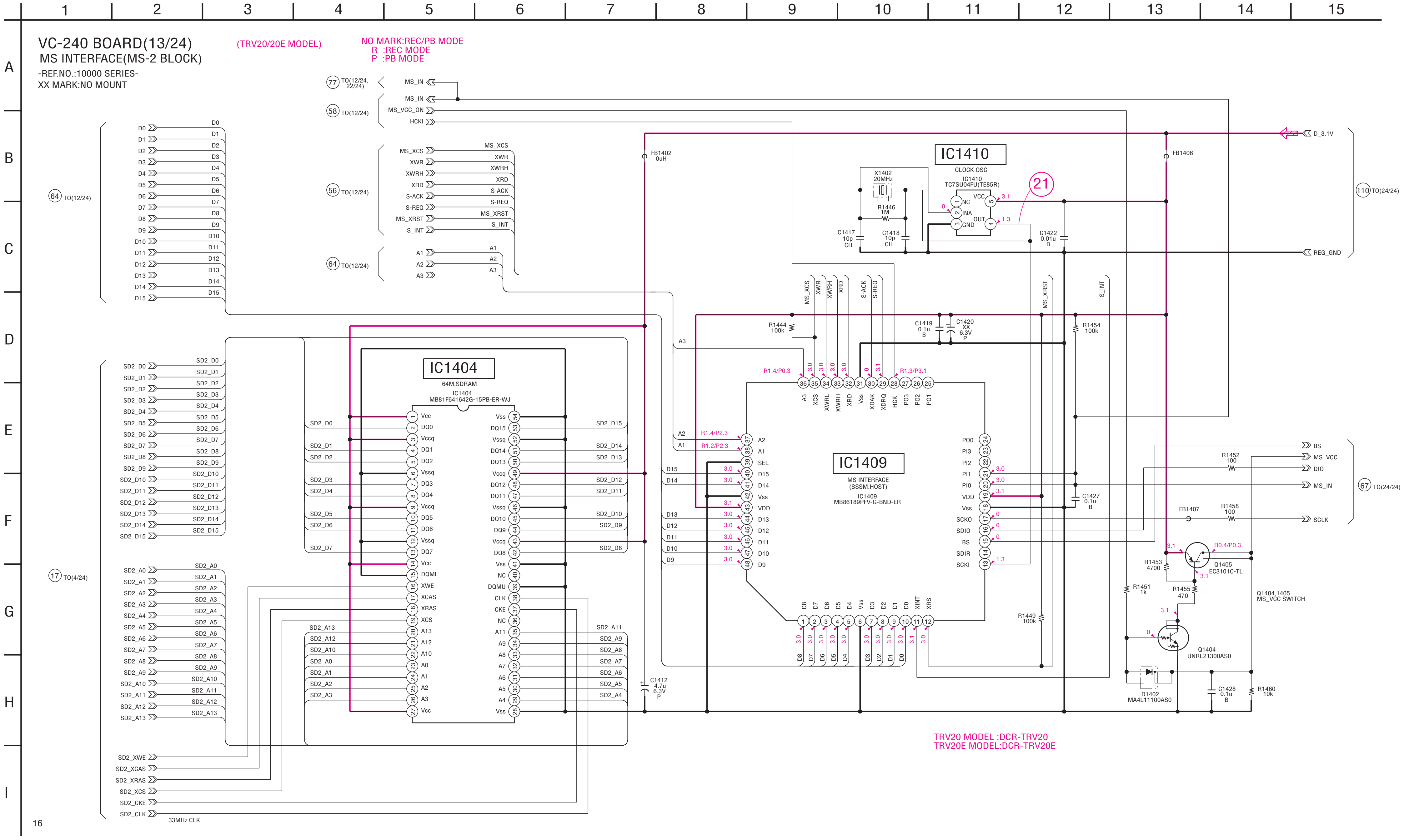
For Schematic Diagram

- Refer to page 4-67 for printed wiring board.
- Refer to page 4-117 for waveform.

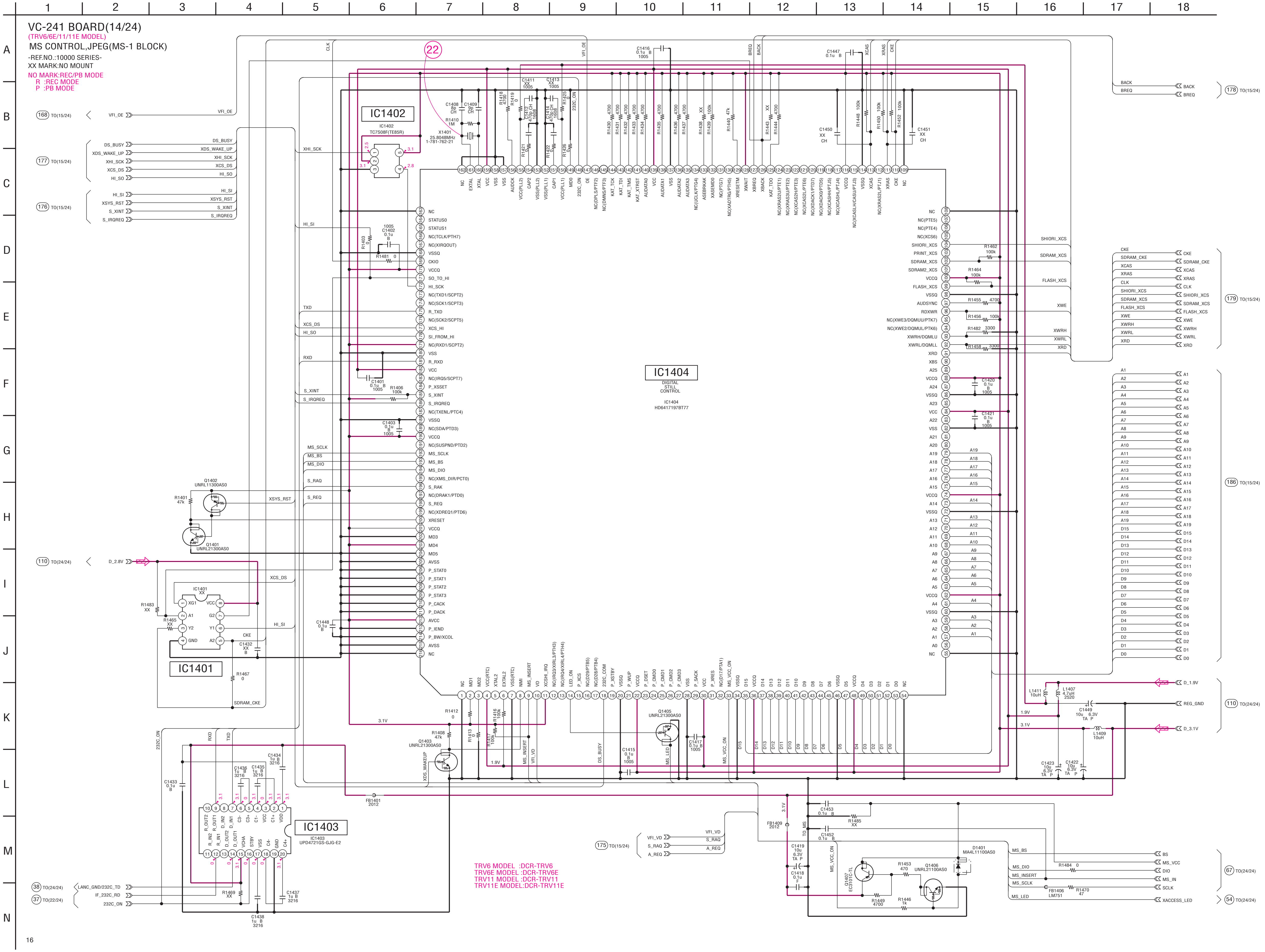


VC-240 BOARD(12/24)
MS CONTROL,JREG(MS-1 BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
(TRV20/20E MODEL)
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
TRV20 MODEL :DCR-TRV20
TRV20E MODEL:DCR-TRV20E
IC1402 BUFFER IC1402 TC7S08F(TE85R)
IC1403 RS-232C I/F IC1403 UPD4721GS-GJG-E2
IC1411 SHUTTER SOUND IC1411 ML2201-100MBZ060
IC1407 JPEG IC1407 RC5V834/E2
IC1408 16M DRAM (FAST PAGE) IC1408 MSM51V18160DSL-6LFS1
IC1412 DIGITAL STILL CONTROL IC1412 HD6437044P12XSZ
IC1405 BUFFER IC1405 TC7W125FU-TE12R
IC1406 EEPROM IC1406 AK6440BH-E2
Q1401 UNRL211300AS0 LED DRIVER
Q1408 UNRL21300AS0 INV.
Q1403 UNRL11300AS0
Q1407 UNRL21300AS0
Q1403, Q1407 BUFFER
X1401 7.375MHz
XDS_FLASH
TO(21/24)
16

For Schematic Diagram
- Refer to page 4-67 for printed wiring board.
- Refer to page 4-117 for waveform.

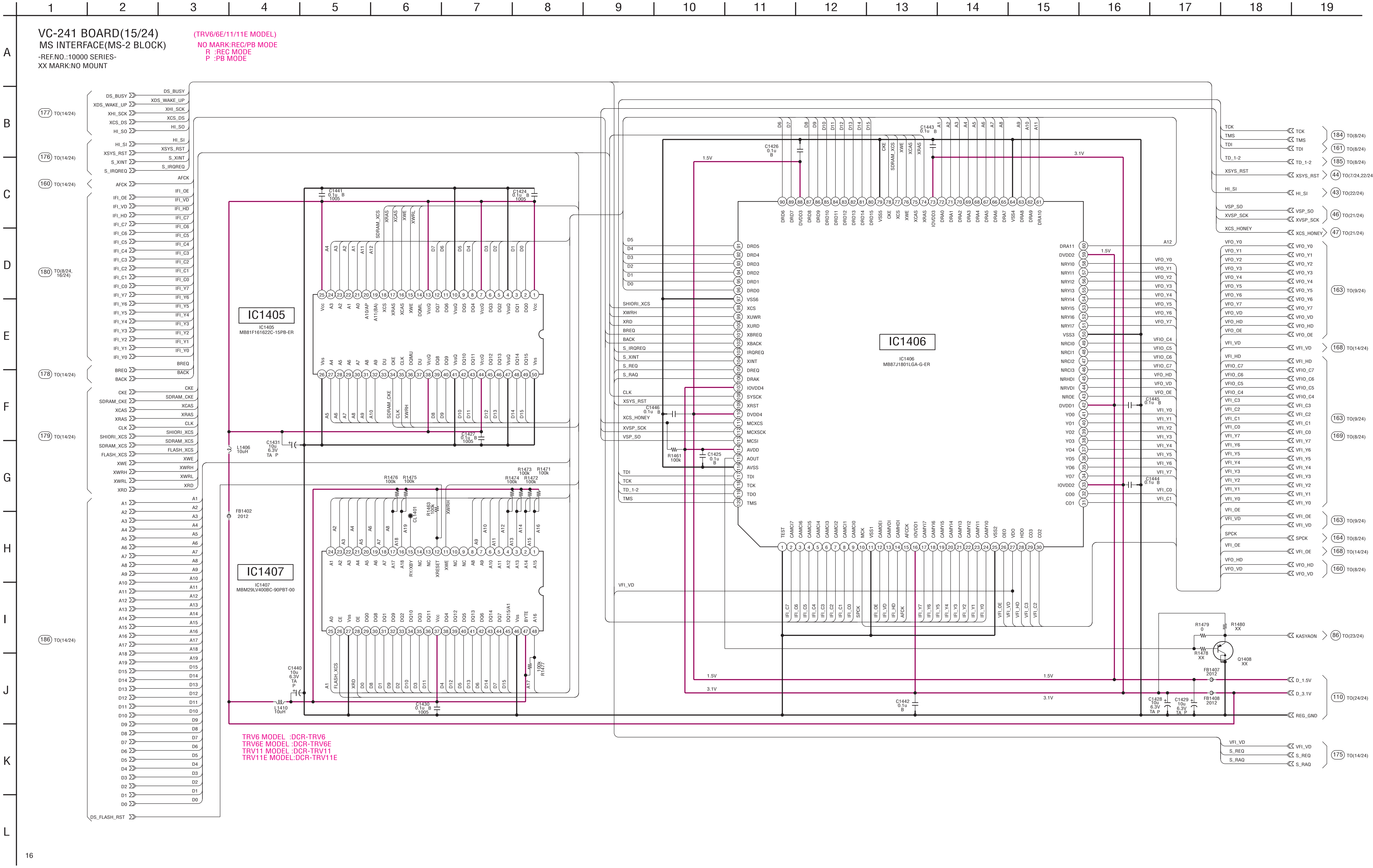

VC-240 BOARD(13/24)
MS INTERFACE(MS-2 BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
(TRV20/20E MODEL)
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC1404
64M,SDRAM
IC1404
MB81F641642G-15PB-ER-WJ
IC1410
CLOCK OSC
IC1410
TC7SU04FU(TE85R)
X1402
20MHz
IC1409
MS INTERFACE
(SSSM.HOST)
IC1409
MB86189PFV-G-BND-ER
Q1405
EC3101C-TL
Q1404
UNRL21300AS0
D1402
MA4L11100AS0
Q1404,1405
MS_VCC SWITCH
FB1402
0uH
FB1406
FB1407
C1412
4.7u
6.3V
P
D_3.1V
REG_GND
BS
MS_VCC
DIO
MS_IN
SCLK
TO(12/24)
TO(24/24)
TO(4/24)
TO(12/24, 22/24)
33MHz CLK
TRV20 MODEL :DCR-TRV20
TRV20E MODEL:DCR-TRV20E
16

For Schematic Diagram
- Refer to page 4-71 for printed wiring board.
- Refer to page 4-117 for waveform.


VC-241 BOARD(14/24)
(TRV6/6E/11/11E MODEL)
MS CONTROL,JPEG(MS-1 BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC1402
TC7S08F(TE85R)
X1401
25.8048MHz
1-781-762-21
IC1404
DIGITAL STILL CONTROL
HD6417197BT77
IC1401
IC1403
UPD4721GS-GJG-E2
Q1402
UNRL11300AS0
Q1401
UNRL21300AS0
Q1403
UNRL21300AS0
Q1405
UNRL21300AS0
Q1406
UNRL21100AS0
D1401
MA4L11100AS0
Q1407
EC3101C-TL
FB1406
LM751
TRV6 MODEL :DCR-TRV6
TRV6E MODEL :DCR-TRV6E
TRV11 MODEL :DCR-TRV11
TRV11E MODEL:DCR-TRV11E
(168) TO(15/24)
(177) TO(15/24)
(176) TO(15/24)
(110) TO(24/24)
(38) TO(24/24)
(37) TO(22/24)
(175) TO(15/24)
(178) TO(15/24)
(179) TO(15/24)
(186) TO(15/24)
(110) TO(24/24)
(67) TO(24/24)
(54) TO(24/24)
VFI_OE
DS_BUSY
XDS_WAKE_UP
XHI_SCK
XCS_DS
HI_SO
HI_SI
XSYS_RST
S_XINT
S_IRQREQ
D_2.8V
LANC_GND/232C_TD
IF_232C_RD
232C_ON
VFI_VD
S_RAQ
A_REQ
BACK
BREQ
CKE
SDRAM_CKE
XCAS
XRAS
CLK
SHIORI_XCS
SDRAM_XCS
FLASH_XCS
XWE
XWRH
XWRL
XRD
D_1.9V
REG_GND
D_3.1V
BS
MS_VCC
DIO
MS_IN
SCLK
XACCESS_LED
16

For Schematic Diagram

- Refer to page 4-71 for printed wiring board.


1
2
3
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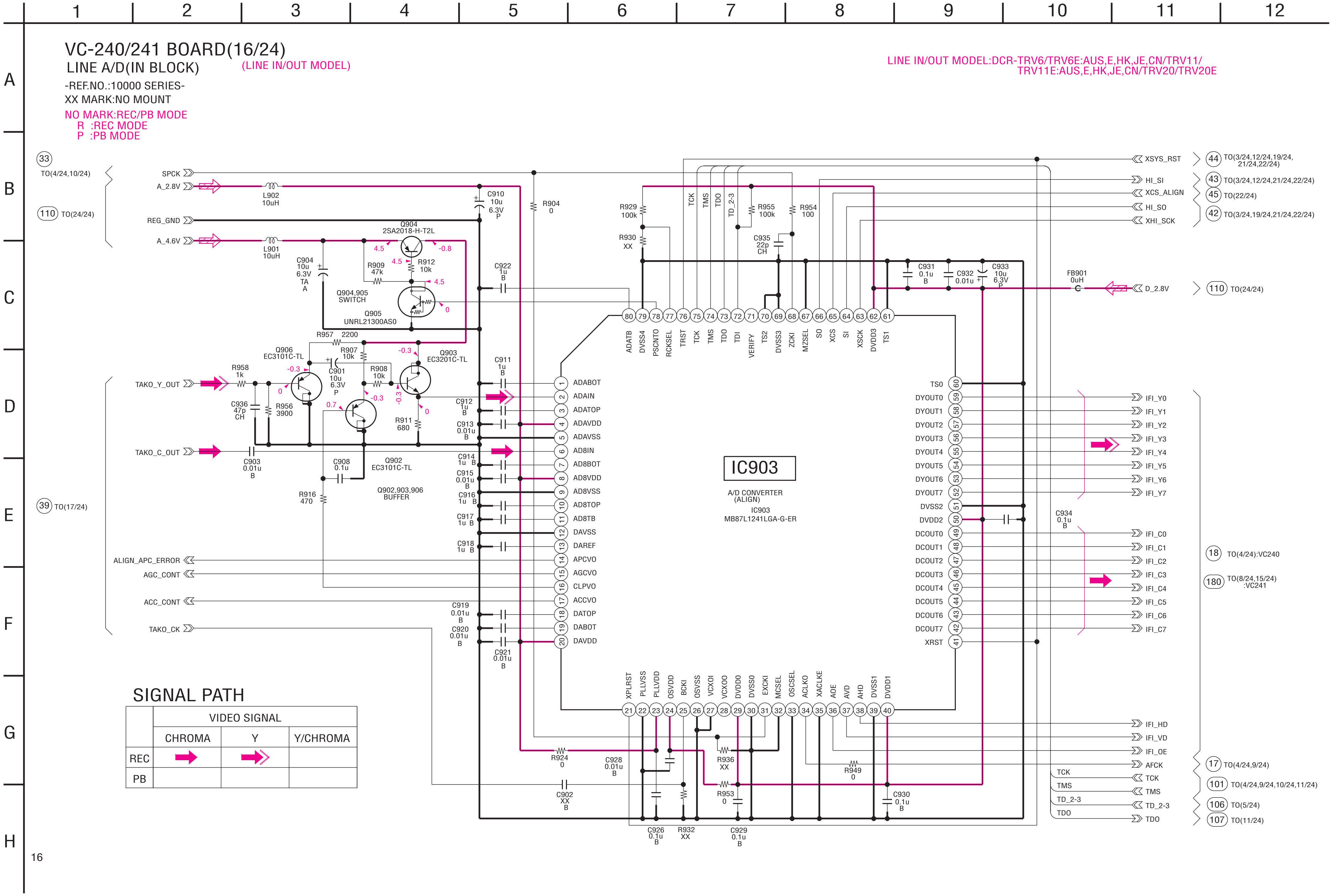
9
10
11
12
13
14
15
16
17
18
19
A
B
C
D
E
F
G
H
I
J
K
L
VC-241 BOARD(15/24)
MS INTERFACE(MS-2 BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
(TRV6/6E/11/11E MODEL)
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC1405
IC1405
MB81F161622C-15PB-ER
IC1407
IC1407
MBM29LV400BC-90PBT-00
IC1406
IC1406
MB87J1801LGA-G-ER
Q1408
XX
L1406
10uH
L1410
10uH
FB1402
2012
FB1407
2012
FB1408
2012
C1441
0.1u B
1005
C1424
0.1u B
1005
C1431
10u
6.3V
TA P
C1427
0.1u B
1005
C1440
10u
6.3V
TA
P
C1430
0.1u B
1005
C1426
0.1u
B
C1443
0.1u B
C1446
0.1u B
C1425
0.1u
B
C1445
0.1u B
C1444
0.1u B
C1442
0.1u
B
C1428
10u
6.3V
TA P
C1429
10u
6.3V
TA P
R1461
100k
R1476
100k
R1475
100k
R1473
100k
R1471
100k
R1474
100k
R1472
100k
R1463
100k
R1477
100k
R1479
0
R1480
XX
R1478
XX
1.5V
3.1V
(177) TO(14/24)
(176) TO(14/24)
(160) TO(14/24)
(180) TO(8/24, 16/24)
(178) TO(14/24)
(179) TO(14/24)
(186) TO(14/24)
(184) TO(8/24)
(161) TO(8/24)
(185) TO(8/24)
(44) TO(7/24,22/24)
(43) TO(22/24)
(46) TO(21/24)
(47) TO(21/24)
(163) TO(9/24)
(168) TO(14/24)
(163) TO(9/24)
(169) TO(8/24)
(163) TO(9/24)
(164) TO(8/24)
(168) TO(14/24)
(160) TO(8/24)
(86) TO(23/24)
(110) TO(24/24)
(175) TO(14/24)
DS_BUSY
XDS_WAKE_UP
XHI_SCK
XCS_DS
HI_SO
HI_SI
XSYS_RST
S_XINT
S_IRQREQ
AFCK
IFI_OE
IFI_VD
IFI_HD
IFI_C7
IFI_C6
IFI_C5
IFI_C4
IFI_C3
IFI_C2
IFI_C1
IFI_C0
IFI_Y7
IFI_Y6
IFI_Y5
IFI_Y4
IFI_Y3
IFI_Y2
IFI_Y1
IFI_Y0
BREQ
BACK
CKE
SDRAM_CKE
XCAS
XRAS
CLK
SHIORI_XCS
SDRAM_XCS
FLASH_XCS
XWE
XWRH
XWRL
XRD
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
A16
A17
A18
A19
D15
D14
D13
D12
D11
D10
D9
D8
D7
D6
D5
D4
D3
D2
D1
D0
DS_FLASH_RST
TCK
TMS
TDI
TD_1-2
XSYS_RST
HI_SI
VSP_SO
XVSP_SCK
XCS_HONEY
VFO_Y0
VFO_Y1
VFO_Y2
VFO_Y3
VFO_Y4
VFO_Y5
VFO_Y6
VFO_Y7
VFO_VD
VFO_HD
VFO_OE
VFI_VD
VFI_HD
VFIO_C7
VFIO_C6
VFIO_C5
VFIO_C4
VFI_C3
VFI_C2
VFI_C1
VFI_C0
VFI_Y7
VFI_Y6
VFI_Y5
VFI_Y4
VFI_Y3
VFI_Y2
VFI_Y1
VFI_Y0
VFI_OE
SPCK
KASYAON
D_1.5V
D_3.1V
REG_GND
S_REQ
S_RAQ
TRV6 MODEL :DCR-TRV6
TRV6E MODEL :DCR-TRV6E
TRV11 MODEL :DCR-TRV11
TRV11E MODEL:DCR-TRV11E
16

For Schematic Diagram

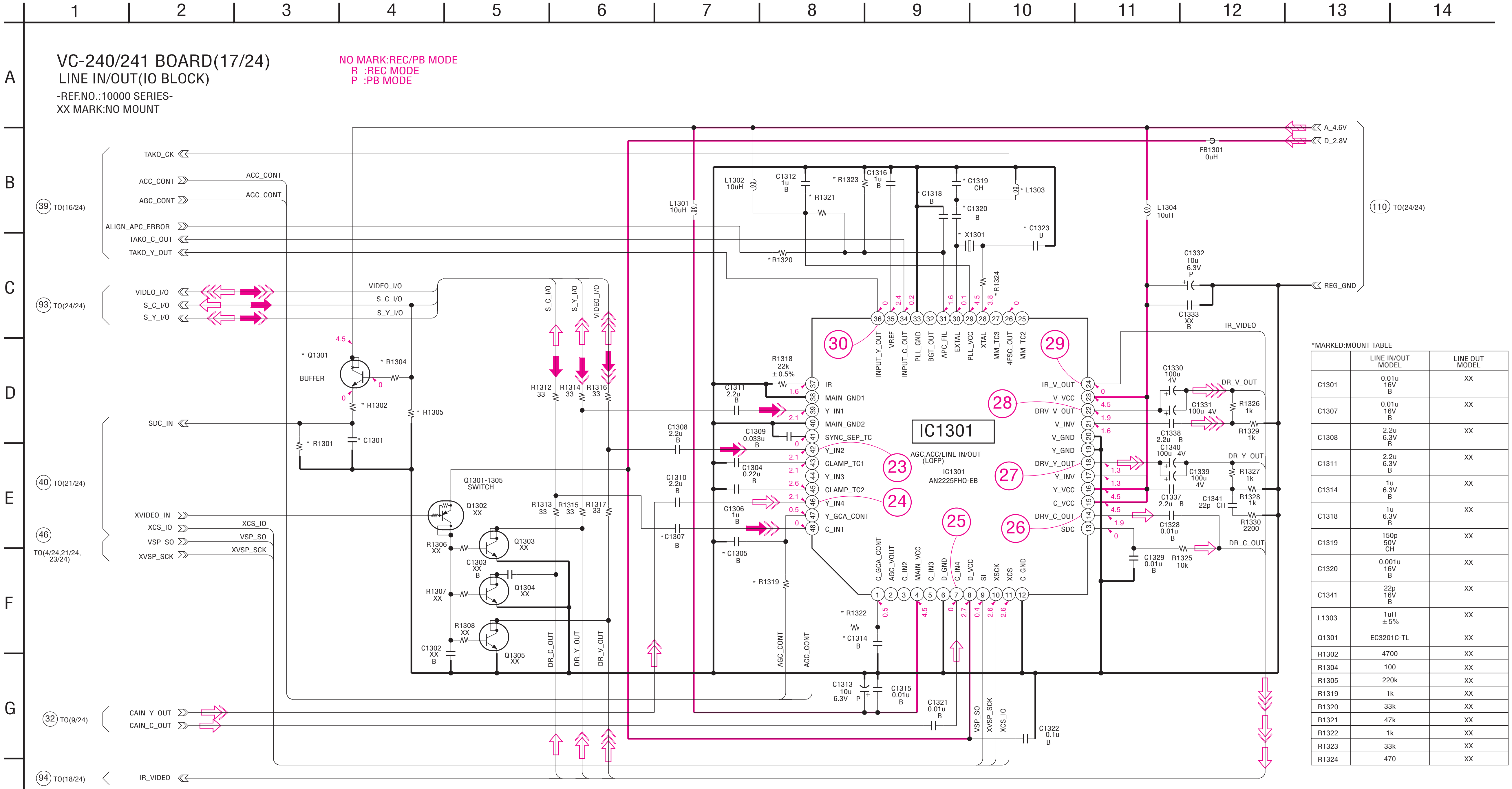
- Refer to page 4-67/71 for printed wiring board.


VC-240/241 BOARD(16/24)
LINE A/D(IN BLOCK)
(LINE IN/OUT MODEL)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
LINE IN/OUT MODEL:DCR-TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN/TRV20/TRV20E
1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
33 TO(4/24,10/24)
110 TO(24/24)
39 TO(17/24)
SPCK
A_2.8V
REG_GND
A_4.6V
TAKO_Y_OUT
TAKO_C_OUT
ALIGN_APC_ERROR
AGC_CONT
ACC_CONT
TAKO_CK
L902 10uH
L901 10uH
C904 10u 6.3V TA A
C910 10u 6.3V P
R904 0
Q904 2SA2018-H-T2L
R909 47k
R912 10k
Q904,905 SWITCH
Q905 UNRL21300AS0
C922 1u B
R957 2200
Q906 EC3101C-TL
R958 1k
C936 47p CH
R956 3900
C901 10u 6.3V P
R907 10k
R908 10k
Q903 EC3201C-TL
R911 680
C903 0.01u B
C908 0.1u
Q902 EC3101C-TL
Q902,903,906 BUFFER
R916 470
C911 1u B
C912 1u B
C913 0.01u B
C914 1u B
C915 0.01u B
C916 1u B
C917 1u B
C918 1u B
C919 0.01u B
C920 0.01u B
C921 0.01u B
4.5
-0.8
4.5
4.5
0
-0.3
0
0.7
-0.3
-0.3
-0.3
0
R929 100k
R930 XX
R955 100k
R954 100
C935 22p CH
C931 0.1u B
C932 0.01u
C933 10u 6.3V P
FB901 0uH
C934 0.1u B
IC903
A/D CONVERTER (ALIGN)
IC903 MB87L1241LGA-G-ER
ADATB
DVSS4
PSCNTO
RCKSEL
TRST
TCK
TMS
TDO
TDI
VERIFY
TS2
DVSS3
ZCKI
MZSEL
SO
XCS
SI
XSCK
DVDD3
TS1
ADABOT
ADAIN
ADATOP
ADAVDD
ADAVSS
AD8IN
AD8BOT
AD8VDD
AD8VSS
AD8TOP
AD8TB
DAVSS
DAREF
APCVO
AGCVO
CLPVO
ACCVO
DATOP
DABOT
DAVDD
TS0
DYOUT0
DYOUT1
DYOUT2
DYOUT3
DYOUT4
DYOUT5
DYOUT6
DYOUT7
DVSS2
DVDD2
DCOUT0
DCOUT1
DCOUT2
DCOUT3
DCOUT4
DCOUT5
DCOUT6
DCOUT7
XRST
XPLRST
PLLVSS
PLLVDD
OSVDD
BCKI
OSVSS
VCXOI
VCXOO
DVDD0
DVSS0
EXCKI
MCSEL
OSCSEL
ACLKO
XACLKE
AOE
AVD
AHD
DVSS1
DVDD1
TCK
TMS
TDO
TD_2-3
XSYS_RST
HI_SI
XCS_ALIGN
HI_SO
XHI_SCK
D_2.8V
IFI_Y0
IFI_Y1
IFI_Y2
IFI_Y3
IFI_Y4
IFI_Y5
IFI_Y6
IFI_Y7
IFI_C0
IFI_C1
IFI_C2
IFI_C3
IFI_C4
IFI_C5
IFI_C6
IFI_C7
IFI_HD
IFI_VD
IFI_OE
AFCK
TCK
TMS
TD_2-3
TDO
44 TO(3/24,12/24,19/24,21/24,22/24)
43 TO(3/24,12/24,21/24,22/24)
45 TO(22/24)
42 TO(3/24,19/24,21/24,22/24)
110 TO(24/24)
18 TO(4/24):VC240
180 TO(8/24,15/24):VC241
17 TO(4/24,9/24)
101 TO(4/24,9/24,10/24,11/24)
106 TO(5/24)
107 TO(11/24)
R924 0
C928 0.01u B
C902 XX B
C926 0.1u B
R932 XX
R936 XX
R953 0
C929 0.1u B
R949 0
C930 0.1u B
16

SIGNAL PATH

	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC	➡	⇨	
PB			

For Schematic Diagram
- Refer to page 4-67/71 for printed wiring board.
- Refer to page 4-117 for waveforms.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13
14
A
B
C
D
E
F
G
H
VC-240/241 BOARD(17/24)
LINE IN/OUT(IO BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
(39) TO(16/24)
TAKO_CK
ACC_CONT
AGC_CONT
ALIGN_APC_ERROR
TAKO_C_OUT
TAKO_Y_OUT
(93) TO(24/24)
VIDEO_I/O
S_C_I/O
S_Y_I/O
SDC_IN
(40) TO(21/24)
XVIDEO_IN
XCS_IO
VSP_SO
XVSP_SCK
(46) TO(4/24,21/24,23/24)
(32) TO(9/24)
CAIN_Y_OUT
CAIN_C_OUT
(94) TO(18/24)
IR_VIDEO
(110) TO(24/24)
A_4.6V
D_2.8V
FB1301 0uH
REG_GND
Q1301
BUFFER
R1304
R1302
R1305
R1301
C1301
Q1301-1305 SWITCH
Q1302 XX
Q1303 XX
Q1304 XX
Q1305 XX
R1306 XX
R1307 XX
R1308 XX
C1302 XX B
C1303 XX B
R1312 33
R1314 33
R1316 33
R1313 33
R1315 33
R1317 33
DR_C_OUT
DR_Y_OUT
DR_V_OUT
L1301 10uH
L1302 10uH
C1312 1u B
R1323
C1316 1u B
R1321
C1319 CH
L1303
C1318 B
C1320 B
C1323 B
X1301
R1320
R1324
L1304 10uH
C1332 10u 6.3V P
C1333 XX B
IR_VIDEO
R1318 22k ±0.5%
C1311 2.2u B
C1308 2.2u B
C1309 0.033u B
C1304 0.22u B
C1310 2.2u B
C1306 1u B
C1307 B
C1305 B
R1319
R1322
C1314 B
C1313 10u 6.3V P
C1315 0.01u B
C1321 0.01u B
C1322 0.1u B
AGC_CONT
ACC_CONT
VSP_SO
XVSP_SCK
XCS_IO
IC1301
AGC,ACC/LINE IN/OUT (LQFP)
IC1301 AN2225FHQ-EB
IR
MAIN_GND1
Y_IN1
MAIN_GND2
SYNC_SEP_TC
Y_IN2
CLAMP_TC1
Y_IN3
CLAMP_TC2
Y_IN4
Y_GCA_CONT
C_IN1
INPUT_Y_OUT
VREF
INPUT_C_OUT
PLL_GND
BGT_OUT
APC_FIL
EXTAL
XTAL
PLL_VCC
MM_TC3
4FSC_OUT
MM_TC2
IR_V_OUT
V_VCC
DRV_V_OUT
V_INV
V_GND
Y_GND
DRV_Y_OUT
Y_INV
Y_VCC
C_VCC
DRV_C_OUT
SDC
C_GCA_CONT
AGC_VOUT
C_IN2
MAIN_VCC
C_IN3
D_GND
C_IN4
D_VCC
SI
XSCK
XCS
C_GND
(23)
(24)
(25)
(26)
(27)
(28)
(29)
(30)
C1330 100u 4V
C1331 100u 4V
C1338 2.2u B
C1340 100u 4V
C1339 100u 4V
C1337 2.2u B
C1341 22p CH
C1328 0.01u B
C1329 0.01u B
R1325 10k
R1326 1k
R1329 1k
R1327 1k
R1328 1k
R1330 2200
DR_V_OUT
DR_Y_OUT
DR_C_OUT
16

*MARKED:MOUNT TABLE

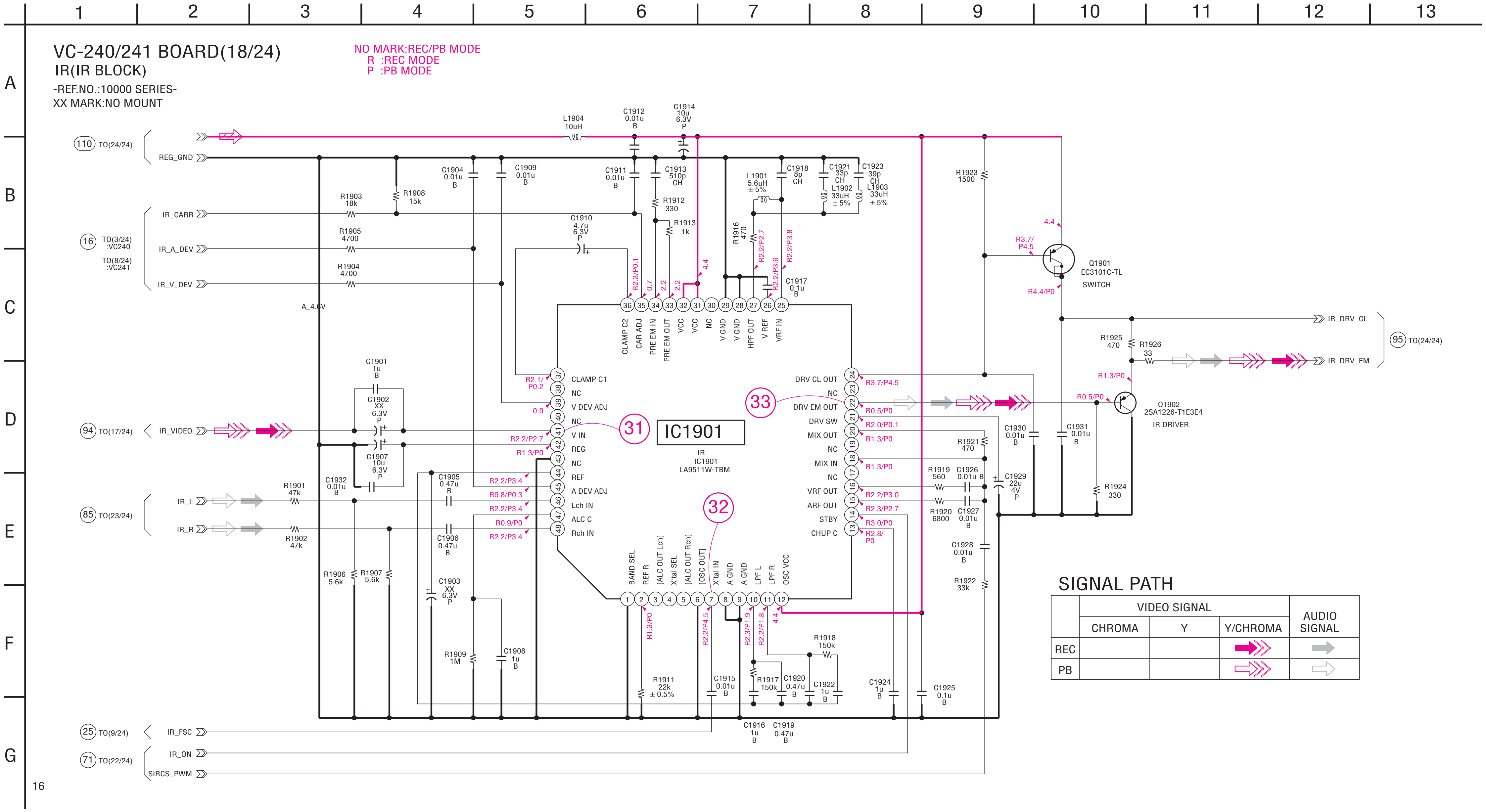
	LINE IN/OUT MODEL	LINE OUT MODEL
C1301	0.01u 16V B	XX
C1307	0.01u 16V B	XX
C1308	2.2u 6.3V B	XX
C1311	2.2u 6.3V B	XX
C1314	1u 6.3V B	XX
C1318	1u 6.3V B	XX
C1319	150p 50V CH	XX
C1320	0.001u 16V B	XX
C1341	22p 16V B	XX
L1303	1uH ±5%	XX
Q1301	EC3201C-TL	XX
R1302	4700	XX
R1304	100	XX
R1305	220k	XX
R1319	1k	XX
R1320	33k	XX
R1321	47k	XX
R1322	1k	XX
R1323	33k	XX
R1324	470	XX

LINE OUT MODEL :DCR-TRV6E:AEP,UK/TRV11E:AEP,UK
LINE IN/OUT MODEL:DCR-TRV6/TRV6E:AUS,E,HK,CN,JE/TRV11/
TRV11E:AUS,E,HK,CN,JE/TRV20/TRV20E

SIGNAL PATH

	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC	➡	➡>	➡>>
PB	⇨	⇨>	⇨>>

For Schematic Diagram
- Refer to page 4-67/71 for printed wiring board.
- Refer to page 4-118 for waveforms.


1
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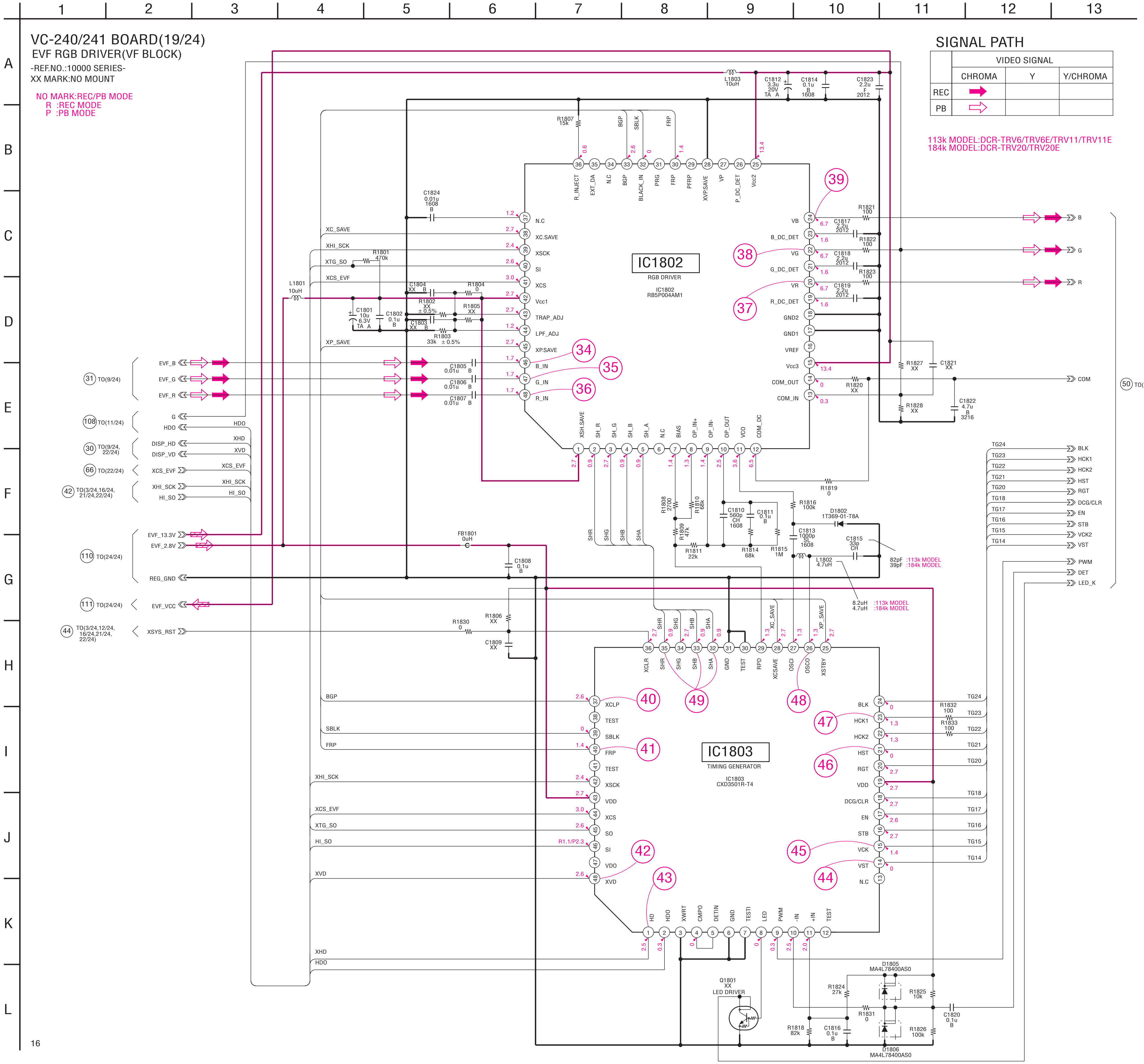
11
12
13
A
B
C
D
E
F
G
VC-240/241 BOARD(18/24)
IR(IR BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
(110) TO(24/24)
REG_GND
IR_CARR
(16) TO(3/24) :VC240
TO(8/24) :VC241
IR_A_DEV
IR_V_DEV
A_4.6V
(94) TO(17/24)
IR_VIDEO
IR_L
(85) TO(23/24)
IR_R
(25) TO(9/24)
IR_FSC
(71) TO(22/24)
IR_ON
SIRCS_PWM
16
L1904 10uH
C1912 0.01u B
C1914 10u 6.3V P
C1904 0.01u B
C1909 0.01u B
C1911 0.01u B
C1913 510p CH
R1912 330
R1913 1k
L1901 5.6uH ±5%
C1918 8p CH
C1921 33p CH
L1902 33uH ±5%
C1923 39p CH
L1903 33uH ±5%
R1903 18k
R1908 15k
R1905 4700
R1904 4700
C1910 4.7u 6.3V P
R1916 470
C1917 0.1u B
R1923 1500
Q1901 EC3101C-TL SWITCH
R3.7/P4.5
R4.4/P0
4.4
IR_DRV_CL
R1925 470
R1926 33
IR_DRV_EM
(95) TO(24/24)
R1.3/P0
R0.5/P0
Q1902 2SA1226-T1E3E4 IR DRIVER
C1901 1u B
C1902 XX 6.3V P
C1907 10u 6.3V P
C1932 0.01u B
R1901 47k
R1902 47k
C1905 0.47u B
C1906 0.47u B
R1906 5.6k
R1907 5.6k
C1903 XX 6.3V P
R1909 1M
C1908 1u B
R1911 22k ±0.5%
C1915 0.01u B
C1916 1u B
C1919 0.47u B
R1917 150k
C1920 0.47u B
C1922 1u B
R1918 150k
C1924 1u B
C1925 0.1u B
R1919 560
C1926 0.01u B
R1920 6800
C1927 0.01u B
C1928 0.01u B
R1922 33k
C1929 22u 4V P
R1921 470
C1930 0.01u B
C1931 0.01u B
R1924 330
IC1901
IR IC1901 LA9511W-TBM
(31)
(32)
(33)
CLAMP C2
CAR ADJ
PRE EM IN
PRE EM OUT
VCC
VCC
NC
V GND
V GND
HPF OUT
V REF
VRF IN
CLAMP C1
NC
V DEV ADJ
NC
V IN
REG
NC
REF
A DEV ADJ
Lch IN
ALC C
Rch IN
BAND SEL
REF R
[ALC OUT Lch]
Xtal SEL
[ALC OUT Rch]
[OSC OUT]
Xtal IN
A GND
A GND
LPF L
LPF R
OSC VCC
DRV CL OUT
NC
DRV EM OUT
DRV SW
MIX OUT
NC
MIX IN
NC
VRF OUT
ARF OUT
STBY
CHUP C
R2.3/P0.1
0.7
2.2
2.2
4.4
R2.2/P2.7
R2.2/P3.6
R2.2/P3.8
R2.1/P0.2
0.9
R2.2/P2.7
R1.3/P0
R2.2/P3.4
R0.8/P0.3
R2.2/P3.4
R0.9/P0
R2.2/P3.4
R3.7/P4.5
R0.5/P0
R2.0/P0.1
R1.3/P0
R1.3/P0
R2.2/P3.0
R2.3/P2.7
R3.0/P0
R2.8/P0
R1.3/P0
R2.2/P4.5
R2.3/P1.9
R2.2/P1.8
4.4

SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC			➡	➡
PB			⇨	⇨

IR
VC-240/241 (18/24)

For Schematic Diagram
- Refer to page 4-67/71 for printed wiring board.
- Refer to page 4-118 for waveforms.


1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H I J K L
VC-240/241 BOARD(19/24)
EVF RGB DRIVER(VF BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
113k MODEL:DCR-TRV6/TRV6E/TRV11/TRV11E
184k MODEL:DCR-TRV20/TRV20E
IC1802
RGB DRIVER
IC1802
RB5P004AM1
IC1803
TIMING GENERATOR
IC1803
CXD3501R-T4
Q1801
XX
LED DRIVER
D1802
1T369-01-T8A
D1805
MA4L78400AS0
D1806
MA4L78400AS0
L1801 10uH
L1802 4.7uH
L1803 10uH
FB1801 0uH
8.2uH :113k MODEL
4.7uH :184k MODEL
82pF :113k MODEL
39pF :184k MODEL
TO(9/24)
TO(11/24)
TO(9/24, 22/24)
TO(22/24)
TO(3/24,16/24, 21/24,22/24)
TO(24/24)
TO(3/24,12/24, 16/24,21/24, 22/24)
EVF_B
EVF_G
EVF_R
G
HDO
DISP_HD
DISP_VD
XCS_EVF
XHI_SCK
HI_SO
EVF_13.3V
EVF_2.8V
REG_GND
EVF_VCC
XSYS_RST
B
G
R
COM
BLK
HCK1
HCK2
HST
RGT
DCG/CLR
EN
STB
VCK2
VST
PWM
DET
LED_K
16

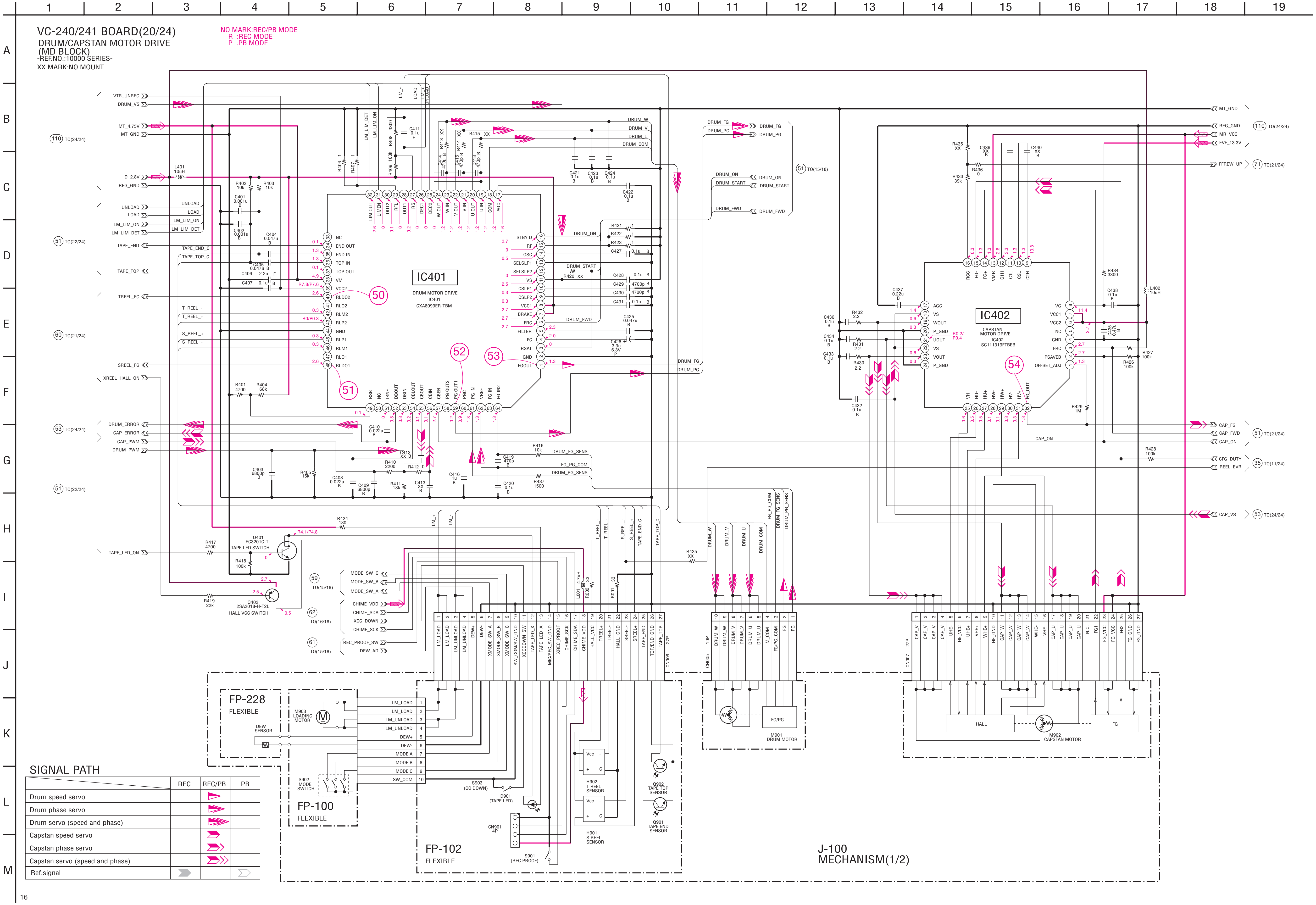
SIGNAL PATH

	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC	➡		
PB	⇨		

EVF RGB DRIVER
VC-240/241 (19/24)

For Schematic Diagram

- Refer to page 4-67/71 for printed wiring board.
- Refer to page 4-118 for waveforms.

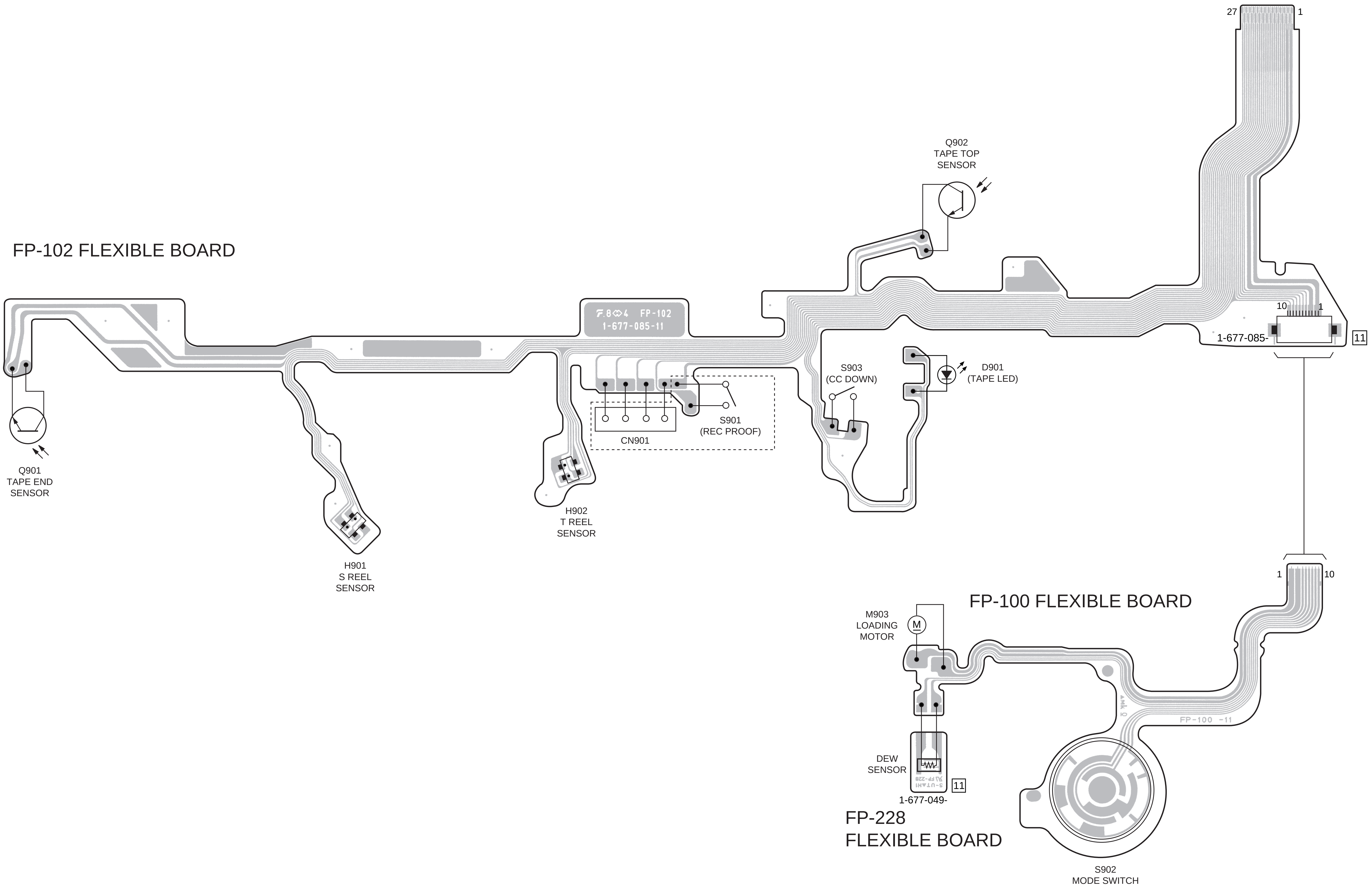

VC-240/241 BOARD(20/24)
DRUM/CAPSTAN MOTOR DRIVE
(MD BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC401
DRUM MOTOR DRIVE
IC401
CXA8099ER-TBM
IC402
CAPSTAN MOTOR DRIVE
IC402
SC111319FTBEB
Q401
EC3201C-TL
TAPE LED SWITCH
Q402
2SA2018-H-T2L
HALL VCC SWITCH
FP-228
FLEXIBLE
DEW SENSOR
M903 LOADING MOTOR
FP-100
FLEXIBLE
S902 MODE SWITCH
FP-102
FLEXIBLE
S903 (CC DOWN)
D901 (TAPE LED)
CN901 4P
S901 (REC PROOF)
H902 T REEL SENSOR
H901 S REEL SENSOR
Q902 TAPE TOP SENSOR
Q901 TAPE END SENSOR
J-100
MECHANISM(1/2)
M901 DRUM MOTOR
M902 CAPSTAN MOTOR
HALL
FG
FG/PG
CN005 10P
CN006 27P
CN007 27P
TO(24/24)
TO(22/24)
TO(21/24)
TO(15/18)
TO(16/18)
TO(11/24)
MT_GND
REG_GND
MR_VCC
EVF_13.3V
FFREW_UP
CAP_FG
CAP_FWD
CAP_ON
CFG_DUTY
REEL_EVR
CAP_VS
DRUM_FG
DRUM_PG
DRUM_ON
DRUM_START
DRUM_FWD
VTR_UNREG
DRUM_VS
MT_4.75V
D_2.8V
UNLOAD
LOAD
LM_LIM_ON
LM_LIM_DET
TAPE_END
TAPE_TOP
TREEL_FG
SREEL_FG
XREEL_HALL_ON
DRUM_ERROR
CAP_ERROR
CAP_PWM
DRUM_PWM
TAPE_LED_ON
MODE_SW_C
MODE_SW_B
MODE_SW_A
CHIME_VDD
CHIME_SDA
XCC_DOWN
CHIME_SCK
REC_PROOF_SW
DEW_AD

SIGNAL PATH

	REC	REC/PB	PB
Drum speed servo		▶	
Drum phase servo		▶	
Drum servo (speed and phase)		▶	
Capstan speed servo		▶	
Capstan phase servo		▶▶	
Capstan servo (speed and phase)		▶▶	
Ref.signal	▶		▷

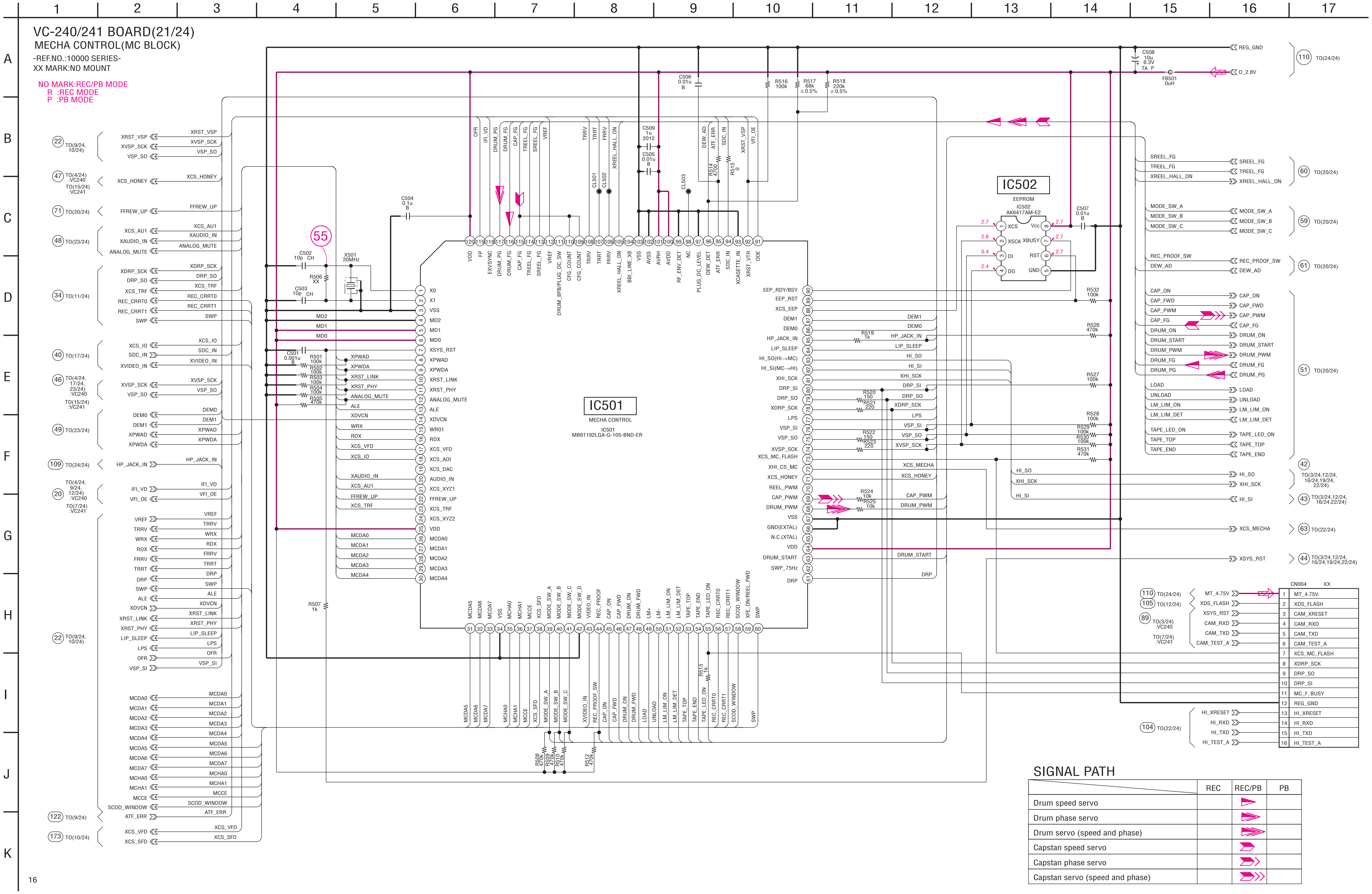
FP-100 (MODE SWITCH). FP-228 (DEW SENSOR), FP-102 (TAPE TOP/END SENSOR, S/T REEL) FLEXIBLE BOARDS

— Ref. No. FP-100, 102, 228 Flexible Board; 7,000 Series —


27
1
Q902
TAPE TOP
SENSOR
FP-102 FLEXIBLE BOARD
FP-102
1-677-085-11
10
1
1-677-085-
11
S903
(CC DOWN)
D901
(TAPE LED)
S901
(REC PROOF)
CN901
Q901
TAPE END
SENSOR
H902
T REEL
SENSOR
H901
S REEL
SENSOR
1
10
FP-100 FLEXIBLE BOARD
M903
LOADING
MOTOR
M
FP-100 -11
DEW
SENSOR
11
1-677-049-
FP-228
FLEXIBLE BOARD
S902
MODE SWITCH

For Schematic Diagram

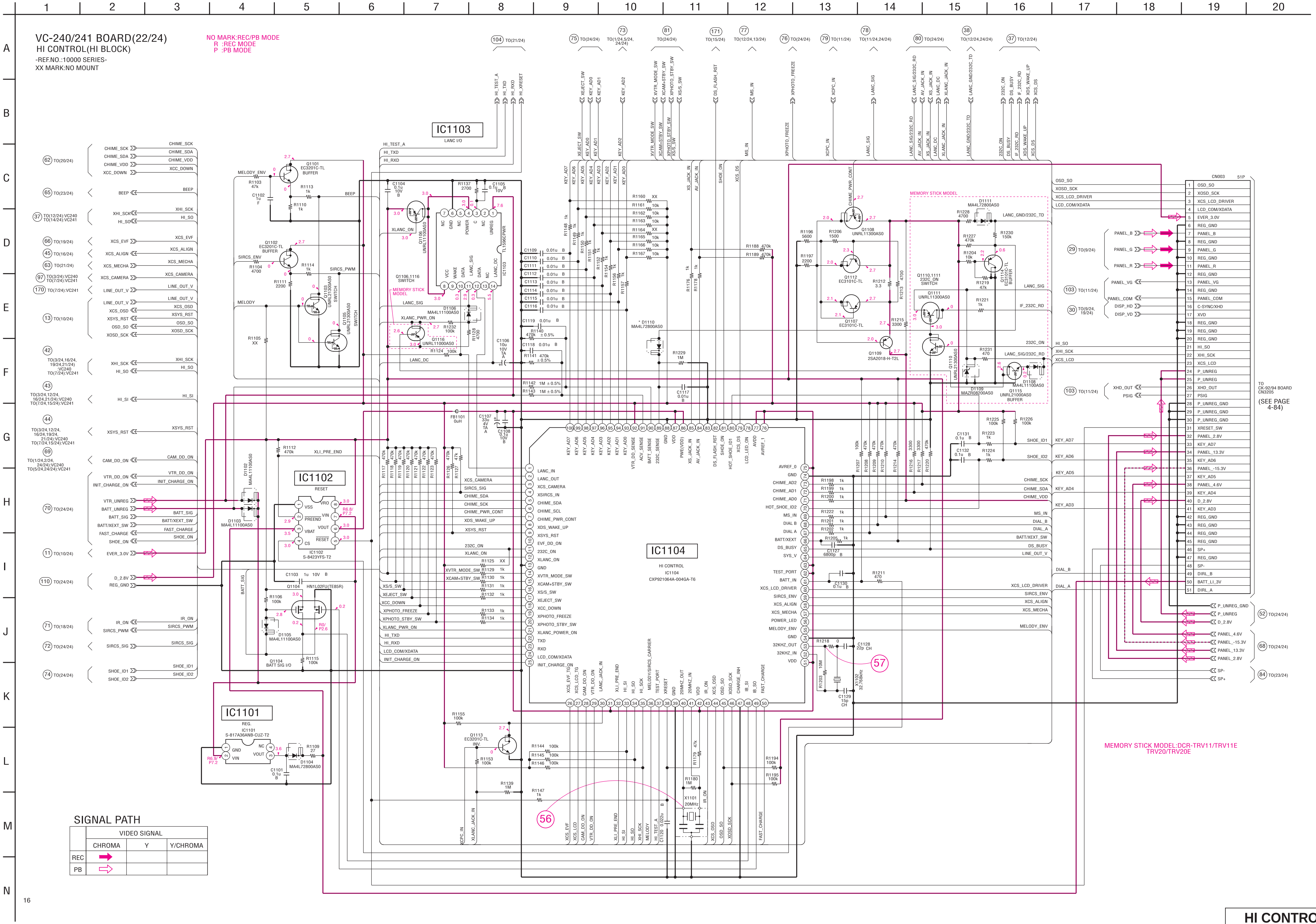
- Refer to page 4-67/71 for printed wiring board.
- Refer to page 4-119 for waveform.


VC-240/241 BOARD(21/24)
MECHA CONTROL(MC BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC501
MECHA CONTROL
IC501
MB91192LGA-G-105-BND-ER
IC502
EEPROM
IC502
AK6417AM-E2
X501
20MHz
CN004
55
16

SIGNAL PATH

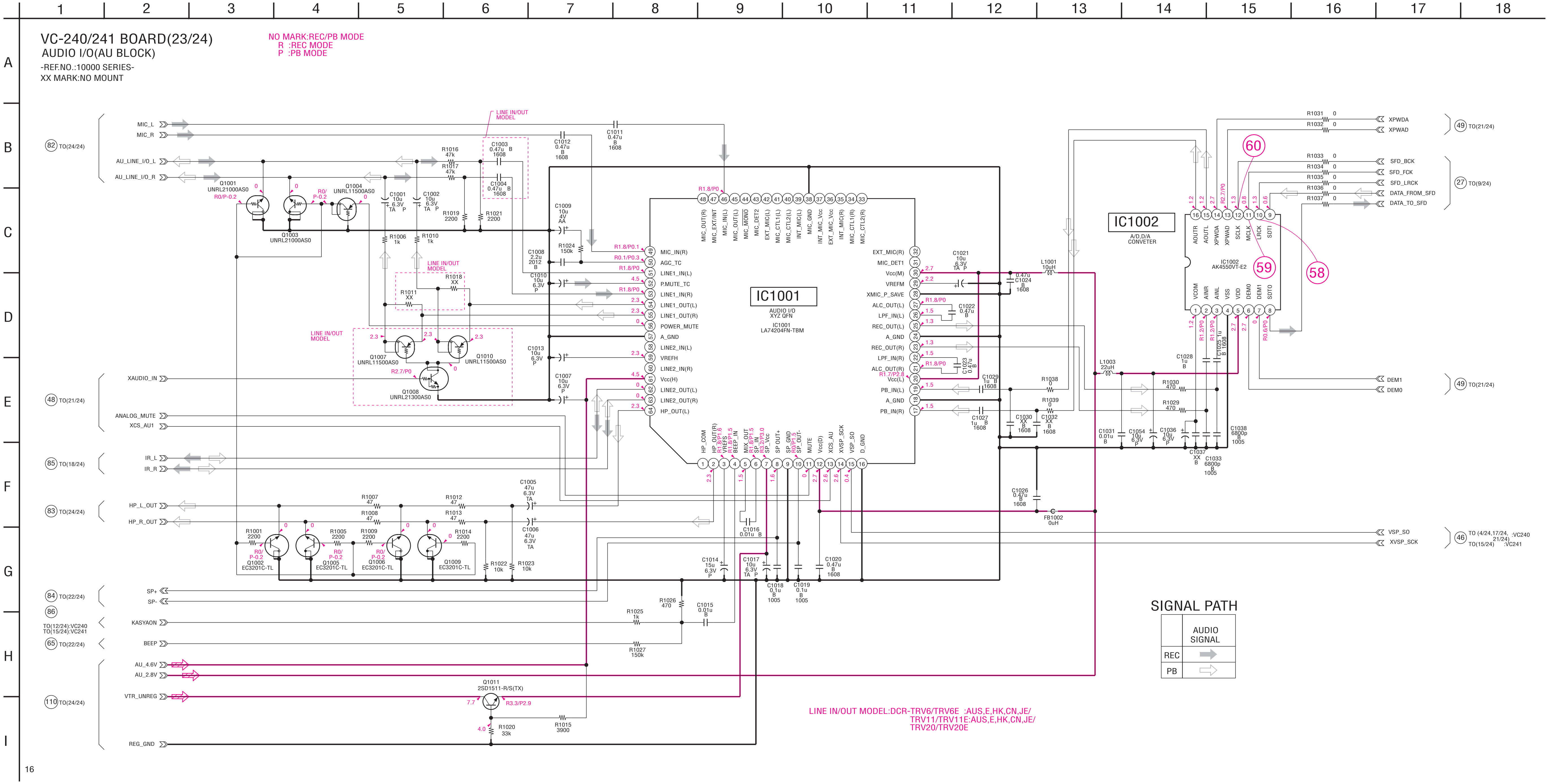
	REC	REC/PB	PB
Drum speed servo		▶	
Drum phase servo		▶	
Drum servo (speed and phase)		▶▶	
Capstan speed servo		▷	
Capstan phase servo		▷	
Capstan servo (speed and phase)		▷▷	

For Schematic Diagram
- Refer to page 4-67/71 for printed wiring board.
- Refer to page 4-119 for waveforms.


VC-240/241 BOARD(22/24)
HI CONTROL(HI BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
IC1103
LANC I/O
IC1102
RESET
S-8423YFS-T2
IC1104
HI CONTROL
IC1104
CXP921064A-004GA-T6
IC1101
REG.
S-817A36ANB-CUZ-T2
MEMORY STICK MODEL
MEMORY STICK MODEL:DCR-TRV11/TRV11E
TRV20/TRV20E
CN003 51P
TO CK-92/94 BOARD CN3205
(SEE PAGE 4-84)
56
57
SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
REC
PB
16

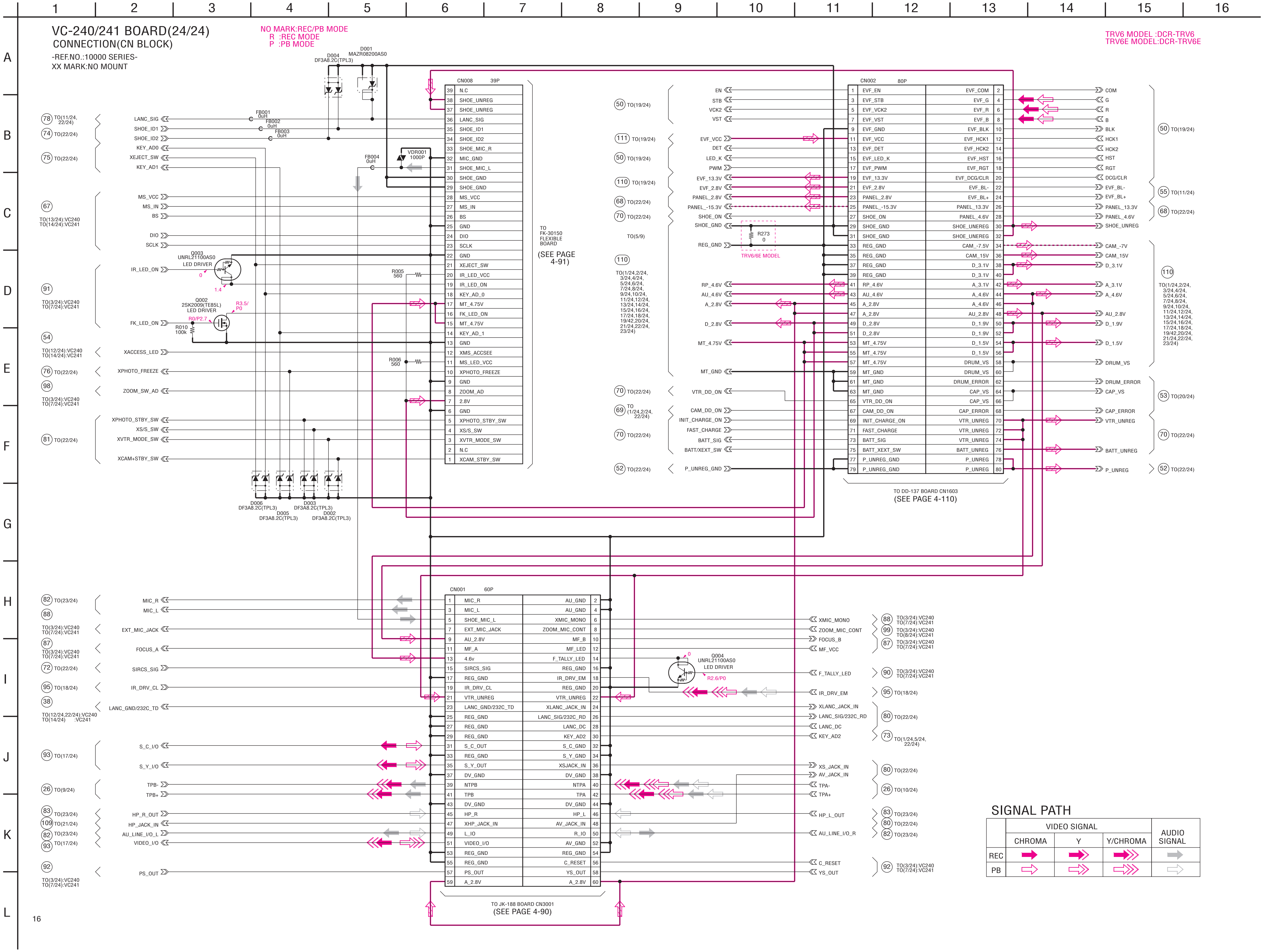
HI CONTROL
VC-240/241 (22/24)

For Schematic Diagram
- Refer to page 4-67/71 for printed wiring board.
- Refer to page 4-119 for waveforms.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
A B C D E F G H I
VC-240/241 BOARD(23/24)
AUDIO I/O(AU BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
MIC_L
MIC_R
AU_LINE_I/O_L
AU_LINE_I/O_R
(82) TO(24/24)
XAUDIO_IN
ANALOG_MUTE
XCS_AU1
(48) TO(21/24)
IR_L
IR_R
(85) TO(18/24)
HP_L_OUT
HP_R_OUT
(83) TO(24/24)
SP+
SP-
(84) TO(22/24)
(86) TO(12/24):VC240 TO(15/24):VC241
KASYAON
BEEP
(65) TO(22/24)
AU_4.6V
AU_2.8V
VTR_UNREG
REG_GND
(110) TO(24/24)
IC1001
AUDIO I/O
XYZ QFN
IC1001
LA74204FN-TBM
MIC_IN(R)
AGC_TC
LINE1_IN(L)
PMUTE_TC
LINE1_IN(R)
LINE1_OUT(L)
LINE1_OUT(R)
POWER_MUTE
A_GND
LINE2_IN(L)
VREFH
LINE2_IN(R)
Vcc(H)
LINE2_OUT(L)
LINE2_OUT(R)
HP_OUT(L)
EXT_MIC(R)
MIC_DET1
Vcc(M)
VREFM
XMIC_P_SAVE
ALC_OUT(L)
LPF_IN(L)
REC_OUT(L)
A_GND
REC_OUT(R)
LPF_IN(R)
ALC_OUT(R)
Vcc(L)
PB_IN(L)
A_GND
PB_IN(R)
MIC_OUT(R)
MIC_EXT/INT
MIC_IN(L)
MIC_OUT(L)
MIC_MONO
MIC_DET2
EXT_MIC(L)
MIC_CTL1(L)
MIC_CTL2(L)
INT_MIC(L)
MIC_GND
INT_MIC_Vcc
EXT_MIC_Vcc
INT_MIC(R)
MIC_CTL1(R)
MIC_CTL2(R)
HP_COM
HP_OUT(R)
VREFS
BEEP_IN
MIX_OUT
SP_IN
SP_Vcc
SP_OUT+
SP_GND
SP_OUT-
MUTE
Vcc(D)
XCS_AU
XVSP_SCK
VSP_SO
D_GND
IC1002
A/D,D/A CONVETER
IC1002
AK4550VT-E2
AOUTR
AOUTL
XPWDA
XPWAD
SCLK
MCLK
LRCK
SDTI
VCOM
AINR
AINL
VSS
VDD
DEM0
DEM1
SDTO
(60)
(59)
(58)
R1031 0
R1032 0
XPWDA
XPWAD
(49) TO(21/24)
R1033 0
R1034 0
R1035 0
R1036 0
R1037 0
SFD_BCK
SFD_FCK
SFD_LRCK
DATA_FROM_SFD
DATA_TO_SFD
(27) TO(9/24)
DEM1
DEM0
(49) TO(21/24)
VSP_SO
XVSP_SCK
(46) TO (4/24,17/24, 21/24) :VC240
TO(15/24) :VC241
Q1001 UNRL21000AS0
Q1003 UNRL21000AS0
Q1004 UNRL11500AS0
Q1007 UNRL11500AS0
Q1010 UNRL11500AS0
Q1008 UNRL21300AS0
Q1002 EC3201C-TL
Q1005 EC3201C-TL
Q1006 EC3201C-TL
Q1009 EC3201C-TL
Q1011 2SD1511-R/S(TX)
L1001 10uH
L1003 22uH
FB1002 0uH
LINE IN/OUT MODEL
LINE IN/OUT MODEL:DCR-TRV6/TRV6E :AUS,E,HK,CN,JE/
TRV11/TRV11E:AUS,E,HK,CN,JE/
TRV20/TRV20E
SIGNAL PATH
AUDIO SIGNAL
REC
PB
16

For Schematic Diagram

- Refer to page 4-67/71 for printed wiring board.

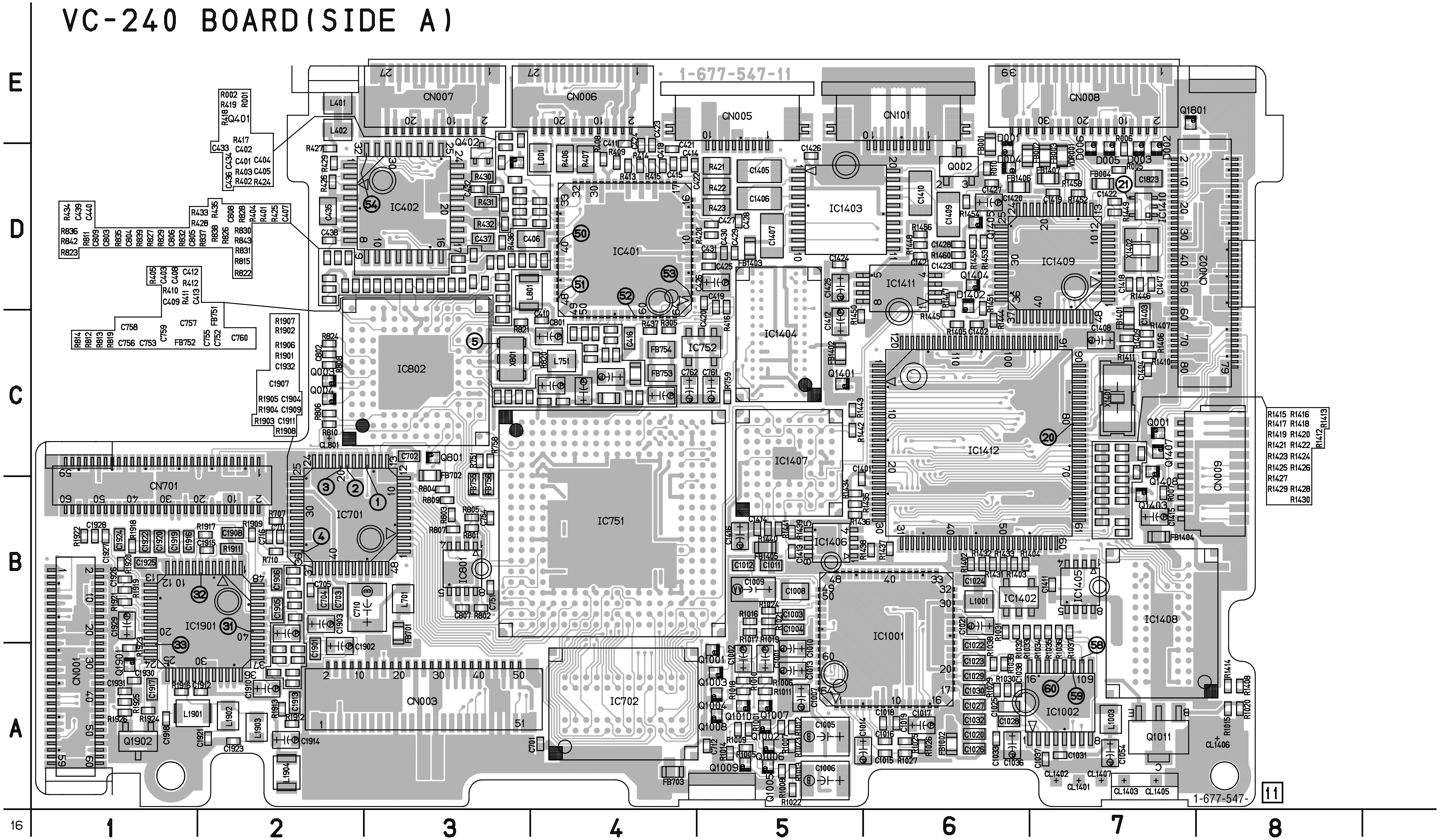

VC-240/241 BOARD(24/24)
CONNECTION(CN BLOCK)
-REF.NO.:10000 SERIES-
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
TRV6 MODEL :DCR-TRV6
TRV6E MODEL:DCR-TRV6E
CN008 39P
TO FK-30150 FLEXIBLE BOARD
(SEE PAGE 4-91)
CN002 80P
TO DD-137 BOARD CN1603
(SEE PAGE 4-110)
CN001 60P
TO JK-188 BOARD CN3001
(SEE PAGE 4-90)
Q003 UNRL21100AS0 LED DRIVER
Q002 2SK2009(TE85L) LED DRIVER
Q004 UNRL21100AS0 LED DRIVER
D001 MAZR08200AS0
D004 DF3A8.2C(TPL3)
D006 DF3A8.2C(TPL3)
D005 DF3A8.2C(TPL3)
D003 DF3A8.2C(TPL3)
D002 DF3A8.2C(TPL3)
VDR001 1000P
R005 560
R006 560
R010 100k
R273 0
TRV6/6E MODEL
FB001 0uH
FB002 0uH
FB003 0uH
FB004 0uH
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
K
L
16

SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡	➡	➡	➡
PB	⇨	⇨	⇨	⇨

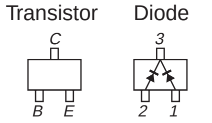
VC-240 (A/D CONV, LENS DRIVER, CAMERA CONTROL, DV SIGNAL PROCESS, REC/PB AMP, DS CONTROL, JPEG, LINE IN/OUT, IR, DRUM/CAPSTAN MOTOR DRIVE, MECHA CONTROL, HI CONTROL, AUDIO I/O) PRINTED WIRING BOARD

— Ref. No. VC-240 Board; 10,000 Series —

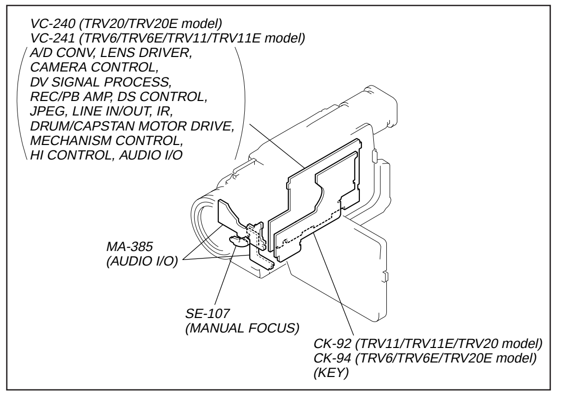

VC-240 BOARD(SIDE A)
1-677-547-11
E
D
C
B
A
1
2
3
4
5
6
7
8
16
CN007
CN006
CN005
CN101
CN008
CN002
CN009
CN701
CN001
CN003
IC402
IC401
IC1403
IC1409
IC1411
IC1404
IC802
IC752
IC1412
IC1407
IC751
IC701
IC801
IC1406
IC1901
IC1001
IC1402
IC1405
IC1408
IC702
IC1002
IC1410
Q401
Q402
Q002
Q1801
Q1404
Q1401
Q003
Q004
Q801
Q001
Q1407
Q1408
Q1403
Q1901
Q1902
Q1001
Q1003
Q1004
Q1008
Q1010
Q1007
Q1009
Q1005
Q1006
Q1011
X801
X1401
X1402
L401
L402
L801
L751
L701
L1901
L1902
L1903
L1904
L1001
L1003
FB703
FB1404
1-677-547-
11

For printed wiring board

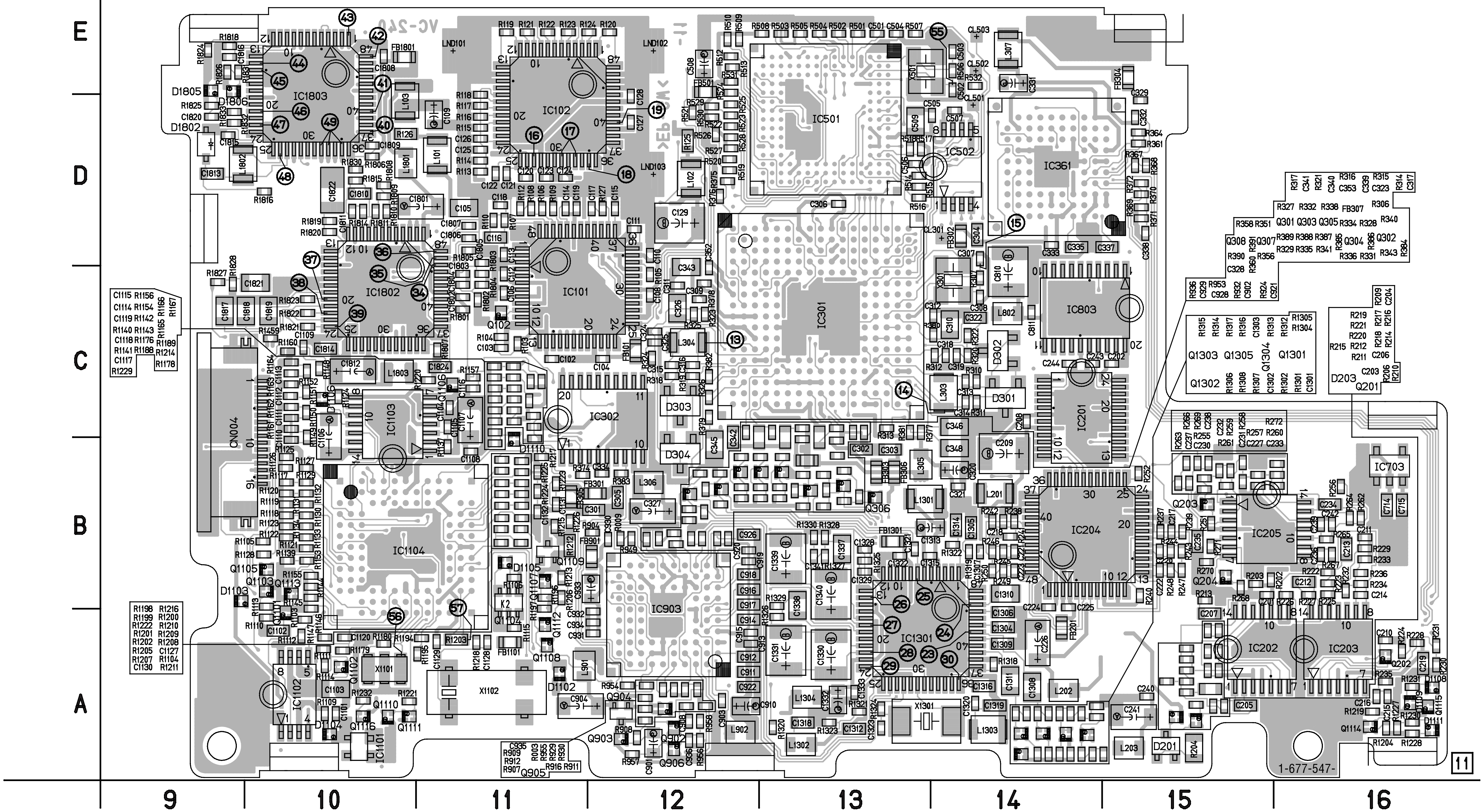
- Refer to page 4-120, 121 for parts location.
- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts


Transistor
Diode
C
B
E
3
2
1

There are few cases that the part printed on this diagram isn't mounted in this model.

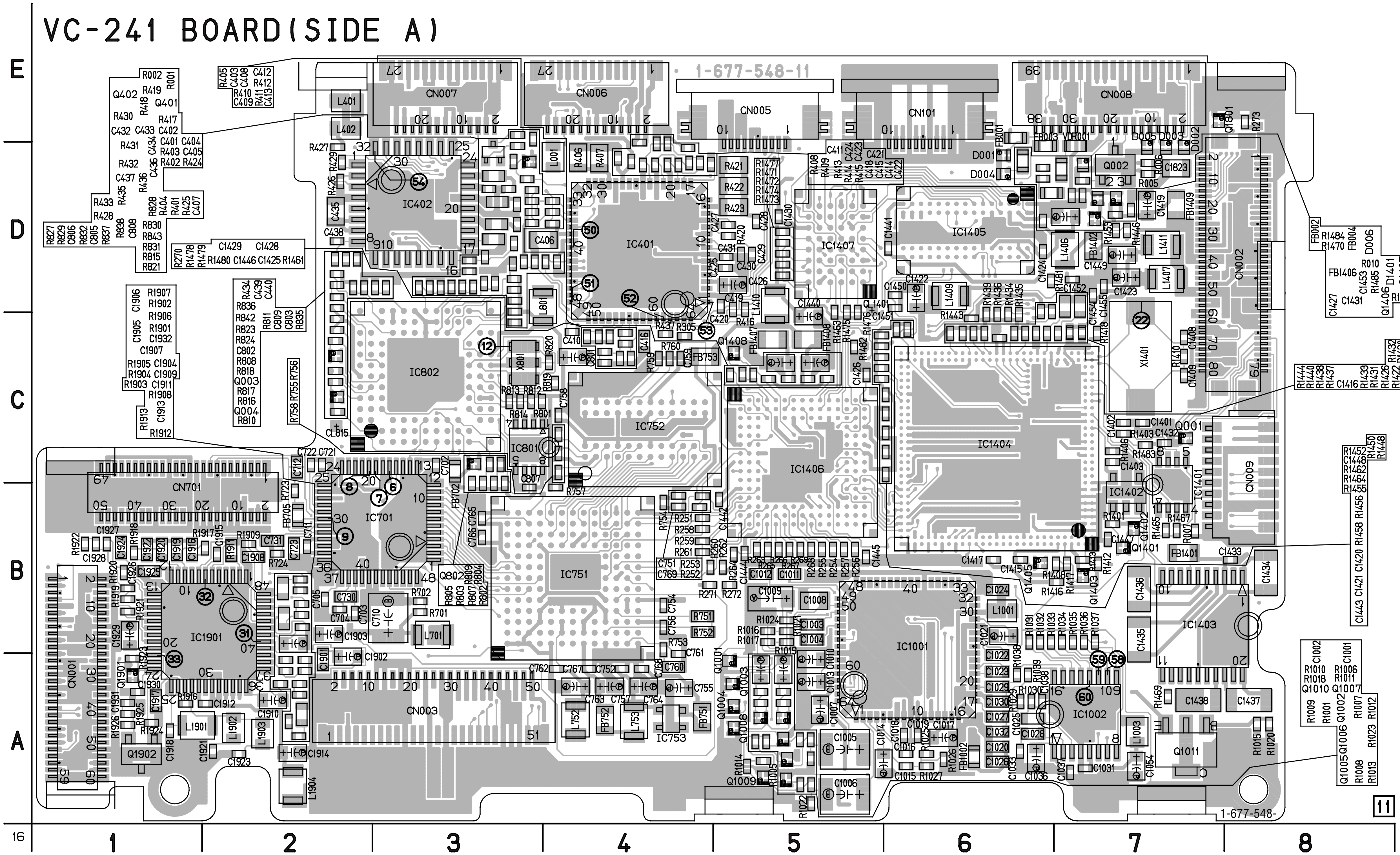

VC-240 (TRV20/TRV20E model)
VC-241 (TRV6/TRV6E/TRV11/TRV11E model)
A/D CONV, LENS DRIVER,
CAMERA CONTROL,
DV SIGNAL PROCESS,
REC/PB AMP, DS CONTROL,
JPEG, LINE IN/OUT, IR,
DRUM/CAPSTAN MOTOR DRIVE,
MECHANISM CONTROL,
HI CONTROL, AUDIO I/O
MA-385
(AUDIO I/O)
SE-107
(MANUAL FOCUS)
CK-92 (TRV11/TRV11E/TRV20 model)
CK-94 (TRV6/TRV6E/TRV20E model)
(KEY)

VC-240 BOARD(SIDE B)


E
D
C
B
A
9
10
11
12
13
14
15
16
IC1803
IC102
IC501
IC502
IC361
IC1802
IC101
IC301
IC803
IC1103
IC302
IC201
IC1104
IC204
IC205
IC703
IC903
IC1301
IC202
IC203
IC1102
IC1101
CN004
X1101
X1102
X1301
X501
D1805
D1806
D1802
D303
D304
D301
D302
D203
D201
D1103
Q1303
Q1305
Q1304
Q1301
Q1302
Q201
Q202
Q203
Q204
Q306
Q904
Q903
Q905
Q906
Q102
Q1105
Q1103
Q1113
Q1108
Q1110
Q1111
Q1116
Q1114
K2
L1803
L1301
L1302
L1303
L1304
L202
L203
L301
L302
L303
L304
L305
L306
L307
L802
L901
L902
1-677-547-
11

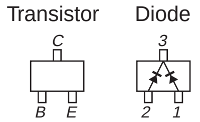
VC-241 (A/D CONV, LENS DRIVER, CAMERA CONTROL, DV SIGNAL PROCESS, REC/PB AMP, DS CONTROL, JPEG, LINE IN/OUT, IR, DRUM/CAPSTAN MOTOR DRIVE, MECHA CONTROL, HI CONTROL, AUDIO I/O) PRINTED WIRING BOARD

— Ref. No. VC-241 Board; 10,000 Series —

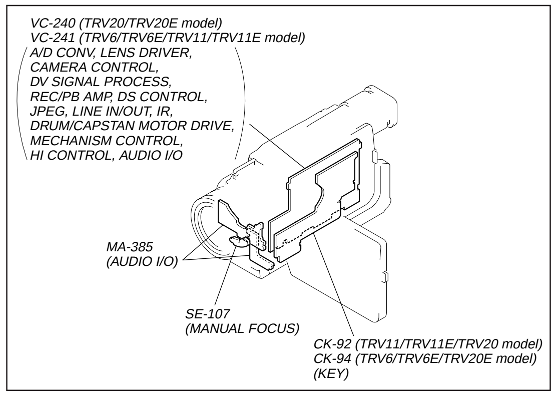

VC-241 BOARD(SIDE A)
1-677-548-11
E
D
C
B
A
1
2
3
4
5
6
7
8
16
11
1-677-548-
CN007
CN006
CN005
CN101
CN008
CN002
CN009
CN701
CN003
CN001
IC402
IC401
IC1407
IC1405
IC802
IC752
IC801
IC1406
IC1404
IC1402
IC701
IC751
IC1901
IC1001
IC1002
IC1403
IC753
X801
X1401
Q001
Q002
Q003
Q004
Q401
Q402
Q802
Q1001
Q1002
Q1003
Q1004
Q1005
Q1006
Q1007
Q1008
Q1009
Q1010
Q1011
Q1401
Q1402
Q1403
Q1405
Q1406
Q1407
Q1408
Q1801
Q1901
Q1902
L401
L402
L001
L701
L752
L753
L801
L1001
L1003
L1406
L1407
L1409
L1411
L1901
L1902
L1903
L1904
D001
D002
D003
D004
D005
D006
D1401
FB001
FB002
FB003
FB004
VDR001

For printed wiring board

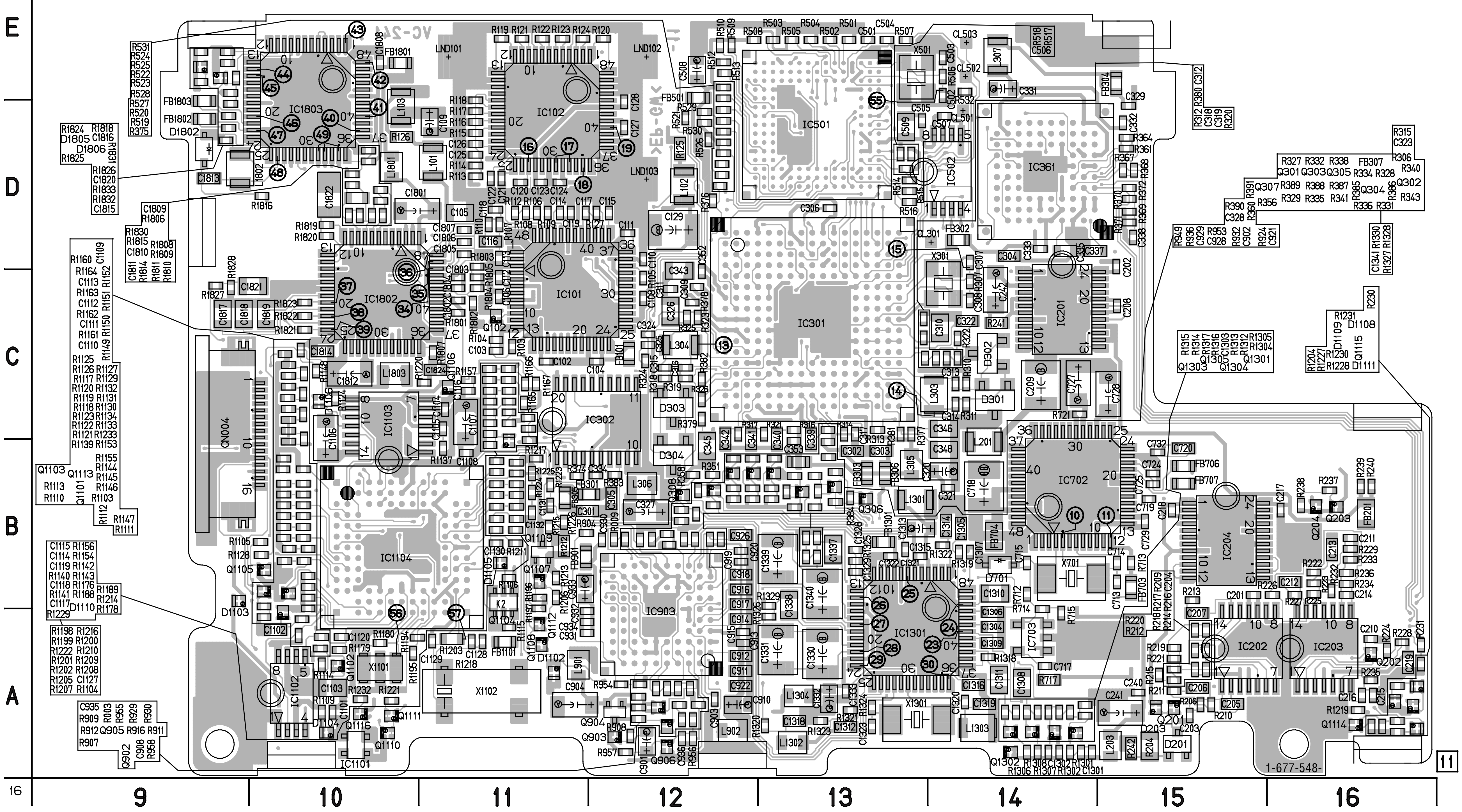
- Refer to page 4-122, 123 for parts location.
- This board is six-layer print board. However, the patterns of layers two to five have not been included in the diagram.
- Chip parts


Transistor
Diode
C
B
E
3
2
1

There are few cases that the part printed on this diagram isn't mounted in this model.


VC-240 (TRV20/TRV20E model)
VC-241 (TRV6/TRV6E/TRV11/TRV11E model)
A/D CONV, LENS DRIVER,
CAMERA CONTROL,
DV SIGNAL PROCESS,
REC/PB AMP, DS CONTROL,
JPEG, LINE IN/OUT, IR,
DRUM/CAPSTAN MOTOR DRIVE,
MECHANISM CONTROL,
HI CONTROL, AUDIO I/O
MA-385
(AUDIO I/O)
SE-107
(MANUAL FOCUS)
CK-92 (TRV11/TRV11E/TRV20 model)
CK-94 (TRV6/TRV6E/TRV20E model)
(KEY)

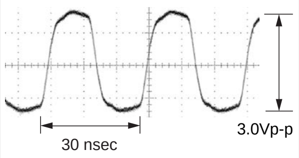
VC-241 BOARD(SIDE B)


E
D
C
B
A
9
10
11
12
13
14
15
16
IC1803
IC102
IC501
IC361
IC1802
IC101
IC301
IC201
IC1103
IC302
IC702
IC204
IC1104
IC903
IC1301
IC703
IC202
IC203
IC1102
IC1101
CN004
X501
X301
X701
X1101
X1102
X1301
1-677-548-
11

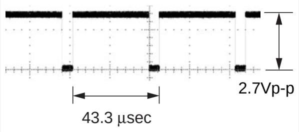
4-3. WAVEFORMS

VC-240 BOARD (1/24)
REC/PB

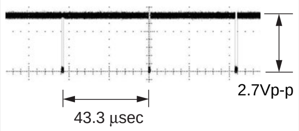
① IC701 ⑯



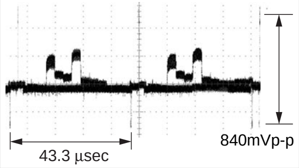
② IC701 ⑲



③ IC701 ⑳

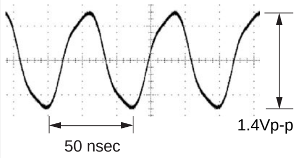


④ IC701 ㊱



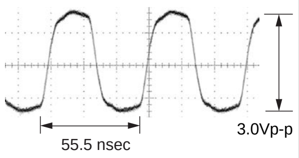
VC-240 BOARD (3/24)
REC/PB

⑤ IC802 ㊶ (X801)

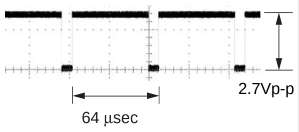


VC-241 BOARD (5/24)
REC/PB

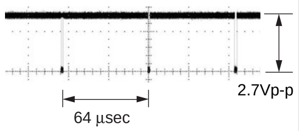
⑥ IC701 ⑯



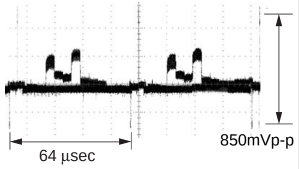
⑦ IC701 ⑲



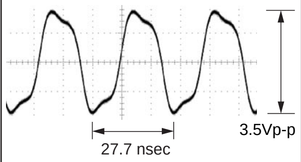
⑧ IC701 ⑳



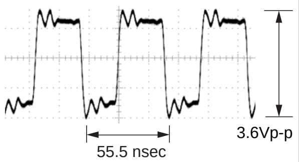
⑨ IC701 ㉚



⑩ IC702 ⑤

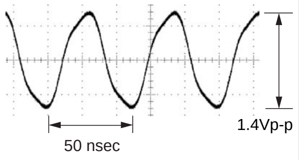


⑪ IC702 ⑫



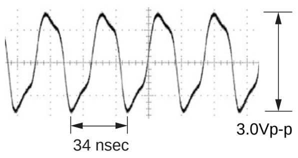
VC-241 BOARD (7/24)
REC/PB

⑫ IC802 ㊶ (X801)

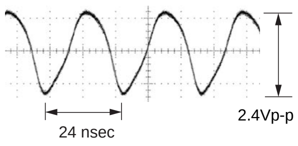


VC-240/241 BOARD (9/24) REC/PB

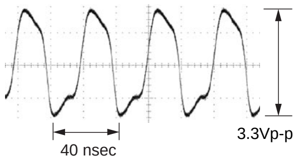
⑬ IC301 ㊺ (L304)



⑭ IC301 (113) (L303)

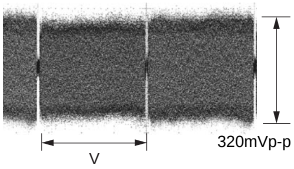


⑮ IC301 (139) (C307)

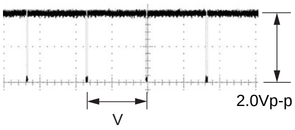


VC-240/241 BOARD (11/24)

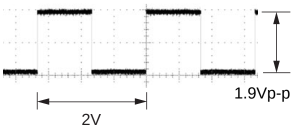
⑯ IC102 ㉗ PB ONLY



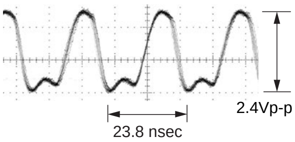
⑰ IC102 ㉛,㉝
REC/PB



⑱ IC102 ㉟
REC/PB

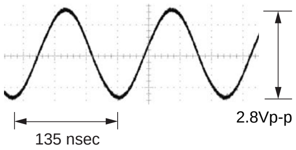


⑲ IC102 ㊵
REC/PB



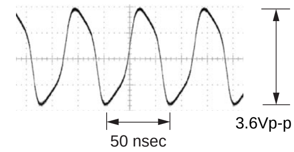
VC-240 BOARD (12/24)
REC/PB

⑳ IC1412 (79)



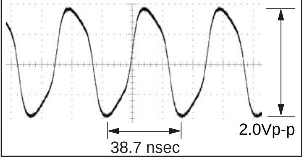
VC-240 BOARD (13/24)
REC/PB

㉑ IC1410 ④



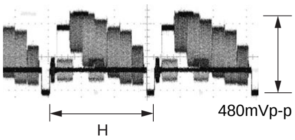
VC-241 BOARD (14/24)
REC/PB

㉒ IC1404 (161) (X1401)
MEMORY STICK PLAY

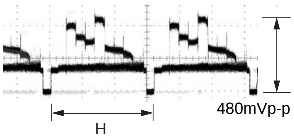


VC-240/241 BOARD (17/24) REC/PB

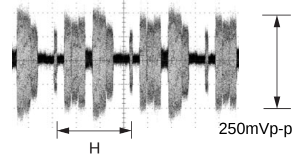
㉓ IC1301 ㊷ (VIDEO IN)



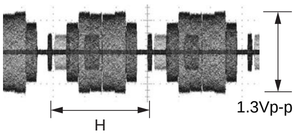
㉔ IC1301 ㊻



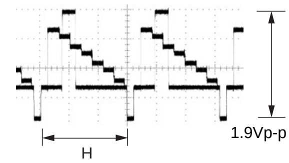
㉕ IC1301 ⑦



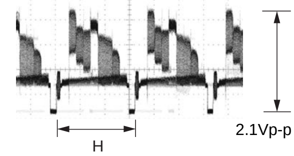
㉖ IC1301 ⑭ (S-VIDEO OUT)



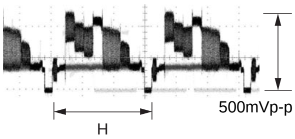
㉗ IC1301 ⑱ (S-VIDEO OUT)



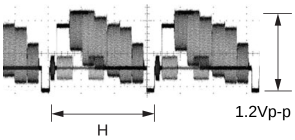
㉘ IC1301 ㉒ (VIDEO OUT)



㉙ IC1301 ㉔ (LASER LINK OUT)

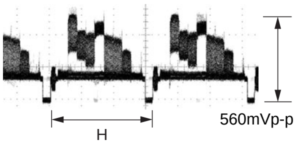


㉚ IC1301 ㊱ (VIDEO IN)

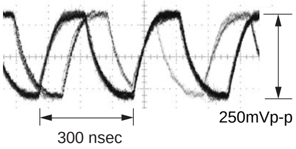


VC-240/241 BOARD (18/24) REC/PB

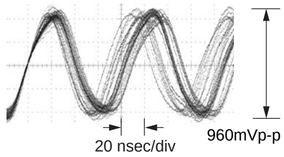
㉛ IC1901 ㊶ (LASER LINK)



㉜ IC1901 ⑦ (LASER LINK)

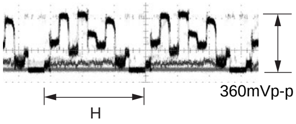


㉝ IC1901 ㉒ (LASER LINK)

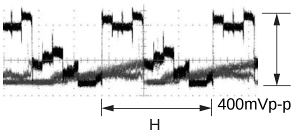


VC-240/241 BOARD (19/24) REC/PB

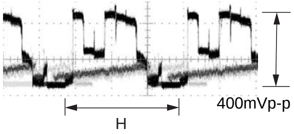
㉞ IC1802 ㊻ (EVF)



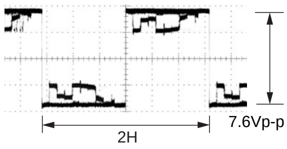
㉟ IC1802 ㊼ (EVF)



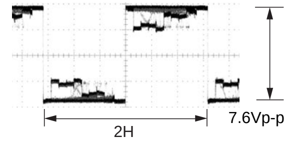
㊱ IC1802 ㊽ (EVF)



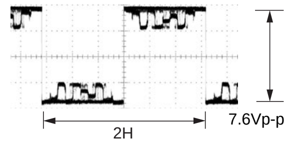
㊲ IC1802 ⑳ (EVF)



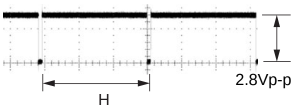
㊳ IC1802 ㉒ (EVF)



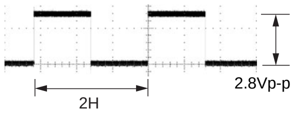
㊴ IC1802 ㉔ (EVF)



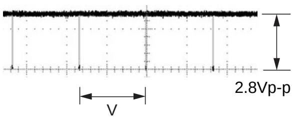
㊵ IC1803 ㊲ (EVF)



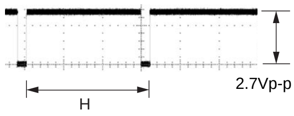
㊶ IC1803 ㊵ (EVF)



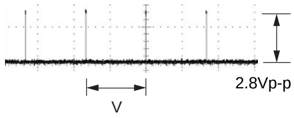
㊷ IC1803 ㊽ (EVF)



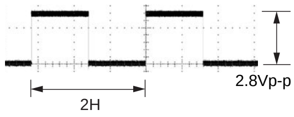
㊸ IC1803 ① (EVF)



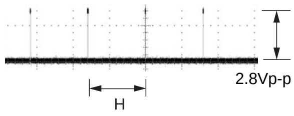
㊹ IC1803 ⑭ (EVF)



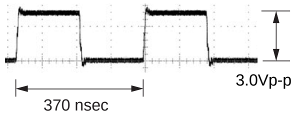
㊺ IC1803 ⑮ (EVF)



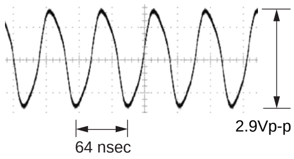
㊻ IC1803 ㉑ (EVF)



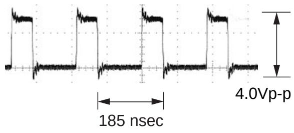
㊼ IC1803 ㉓ (EVF)



㊽ IC1803 ㉖ (EVF)

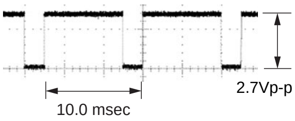


㊾ IC1803 ㉜,㉝,㉟ (EVF)

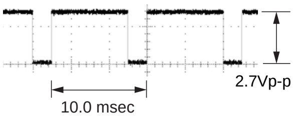


VC-240/241 BOARD (20/24) REC/PB

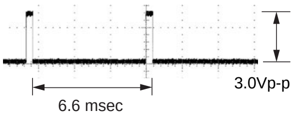
㊿ IC401 ㊵



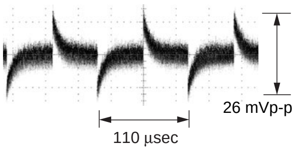
(51) IC401 ㊽



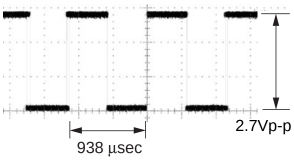
(52) IC401 (59)



(53) IC401 ①

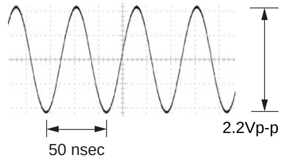


(54) IC402 ㉜



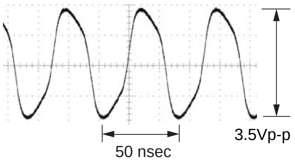
VC-240/241 BOARD
(21/24) REC/PB

(55) IC501 ① (C502)

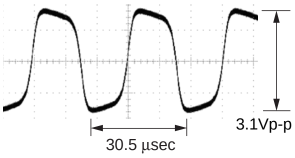


VC-240/241 BOARD
(22/24) REC/PB

(56) IC1104 ㊵ (X1101)

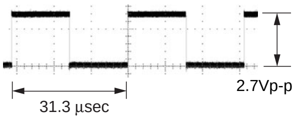


(57) IC1104 (53) (R1203)

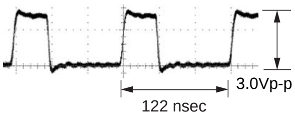


VC-240/241 BOARD
(23/24) REC/PB

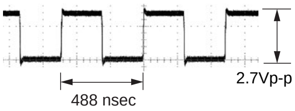
(58) IC1002 ⑩



(59) IC1002 ⑪



(60) IC1002 ⑫



4-4. MOUNTED LOCATION

VC-240 BOARD (SIDE A)

C401	D-3
C402	D-3
C403	C-4
C404	D-4
C405	D-4
C406	D-4
C407	D-4
C408	C-4
C409	C-4
C410	C-4
C411	D-4
C412	C-4
C413	C-4
C414	D-4
C415	D-4
C416	C-4
C418	D-4
C419	D-5
C420	D-5
C421	D-4
C422	D-5
C423	D-4
C424	D-4
C425	D-5
C426	D-5
C427	D-5
C428	D-5
C429	D-5
C430	D-5
C431	D-5
C432	D-3
C433	D-3
C434	D-3
C435	D-2
C436	D-3
C437	D-3
C438	D-2
C439	D-2
C440	D-2
C701	A-4
C702	C-3
C703	B-2
C704	B-2
C705	B-2
C710	B-2
C711	B-2
C712	A-5
C716	B-2
C751	B-3
C752	C-4
C753	C-4
C754	B-3
C755	C-4
C756	C-4
C757	C-4
C758	C-4
C759	C-4
C760	C-4
C761	C-5
C762	C-4
C801	C-4
C802	C-2
C803	D-3
C804	D-3
C805	D-3
C806	D-3
C807	B-3
C808	D-3
C809	D-2
C809	D-3
C1001	A-5
C1002	A-5
C1003	B-5
C1004	B-5
C1005	A-5
C1006	A-5
C1007	A-5
C1008	B-5
C1009	B-5
C1010	A-5
C1011	B-5
C1012	B-5
C1013	A-5
C1014	A-6
C1015	A-6
C1016	A-6
C1017	A-6
C1018	A-6
C1019	A-6
C1020	A-6
C1021	B-6
C1022	A-6
C1023	A-6
C1024	B-6
C1025	A-6
C1026	A-6
C1027	A-6
C1028	A-6
C1029	A-6
C1030	A-6
C1031	A-7
C1032	A-6
C1033	A-6
C1036	A-6
C1037	A-7
C1038	A-6
C1054	A-7
C1401	B-5
C1402	C-6
C1403	C-7
C1404	C-7
C1405	D-5
C1406	D-5
C1407	D-5
C1408	C-7
C1409	D-6
C1410	D-6
C1411	B-7
C1412	C-5
C1413	B-5
C1414	B-5
C1415	B-7
C1416	B-5
C1417	D-7
C1418	D-7
C1419	D-7
C1420	D-6
C1421	D-6
C1422	D-7
C1423	D-6
C1425	D-5
C1425	D-5
C1426	D-5
C1427	D-6
C1428	D-6
C1823	D-7
C1901	A-2
C1902	A-2
C1903	B-2
C1904	A-2
C1905	B-2
C1906	B-2
C1907	B-2
C1908	B-2
C1909	A-2
C1910	A-2
C1911	A-2
C1912	A-2
C1913	A-2
C1914	A-2
C1915	B-2
C1916	B-1
C1917	A-1
C1918	A-1
C1919	B-1
C1920	B-1
C1921	A-2
C1922	B-1
C1923	A-2
C1924	B-1
C1925	B-1
C1926	B-1
C1927	B-1
C1928	B-1
C1929	B-1
C1930	A-1
C1931	A-1
C1932	B-2
CL1403	A-7
CL1405	A-7
CL801	C-2
CN001	A-1
CN002	D-8
CN003	A-3
CN005	E-5
CN006	E-4
CN007	E-3
CN008	E-7
CN009	C-8
CN101	E-6
CN701	B-1
D001	D-6
D002	D-7
D003	D-7
D004	D-6
D005	D-7
D006	D-7
D1402	D-6
FB001	D-6
FB002	D-6
FB003	D-7
FB004	D-7
FB701	B-3
FB702	B-3
FB703	A-4
FB751	C-4
FB752	C-4
FB753	C-4
FB754	C-4
FB755	B-3
FB756	B-3
FB1002	A-6
FB1401	C-7
FB1402	C-5
FB1403	D-5
FB1404	B-7
FB1405	B-5
FB1406	D-6
FB1407	D-7
IC401	D-4
IC402	D-3
IC701	B-2
IC702	A-4
IC751	B-4
IC752	C-5
IC801	B-3
IC802	C-3
IC1001	B-6
IC1002	A-7
IC1402	B-6
IC1403	D-5
IC1404	C-5
IC1405	B-7
IC1406	B-5
IC1407	C-5
IC1408	B-7
IC1409	D-7
IC1410	D-7
IC1411	D-6
IC1412	C-6
IC1901	B-2
L001	D-4
L401	E-2
L402	E-2
L701	B-3
L751	C-4
L801	D-3
L1001	B-6
L1003	A-7
L1901	A-1
L1902	A-2
L1903	A-2
L1904	A-2
Q001	C-7
Q002	D-6
Q003	C-2
Q004	C-2
Q401	D-3
Q402	D-3
Q801	C-3
Q1001	A-5
Q1002	A-5
Q1003	A-5
Q1004	A-5
Q1005	A-5
Q1006	A-5
Q1007	A-5
Q1008	A-5
Q1009	A-5
Q1010	A-5
Q1011	A-7
Q1401	C-5
Q1403	B-7
Q1404	D-6
Q1405	D-6
Q1407	C-7
Q1408	C-7
Q1801	E-7
Q1901	A-1
Q1902	A-1
R001	E-3
R002	E-3
R005	D-7
R006	D-7
R007	B-7
R010	D-6
R305	C-4
R401	D-3
R402	D-3
R403	D-3
R404	D-3
R405	C-4
R406	D-4
R407	D-4
R408	D-4
R409	D-4
R410	C-4
R411	C-4
R412	C-4
R413	D-4
R414	D-4
R415	D-4
R416	D-5
R417	D-3
R418	D-3
R419	D-3
R420	D-5
R421	D-5
R422	D-5
R423	D-5
R424	D-4
R425	D-4
R426	D-2
R427	D-2
R428	D-3
R429	D-2
R430	D-3
R431	D-3
R432	D-3
R433	D-3
R434	D-2
R435	D-3
R436	D-3
R437	C-4
R707	B-2
R710	B-2
R751	C-3
R758	C-3
R759	C-5
R801	B-3
R802	B-3
R803	B-3
R804	B-3
R805	B-3
R806	C-2
R807	B-3
R808	C-2
R809	B-3
R810	C-2
R811	D-2
R812	C-3
R813	C-3
R814	C-3
R815	D-3
R819	C-3
R820	C-4
R821	C-3
R822	C-3
R823	D-2
R824	C-2
R826	D-3
R827	D-3
R828	D-3
R829	D-3
R830	D-3
R831	D-3
R832	D-3
R835	D-3
R836	D-2
R837	D-3
R838	D-3
R839	D-3
R842	D-2
R843	D-3
R1001	A-5
R1005	A-5
R1006	A-5
R1007	A-5
R1008	A-5
R1009	A-5
R1010	A-5
R1011	A-5
R1012	A-5
R1013	A-5
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R1016	B-5
R1017	B-5
R1018	A-5
R1019	B-5
R1020	A-8
R1021	B-5
R1022	A-5
R1023	A-5
R1024	B-5
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R1026	A-6
R1027	A-6
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R1030	A-6
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R1032	B-6
R1033	B-6
R1034	B-7
R1035	B-7
R1036	B-7
R1037	B-7
R1038	A-6
R1039	A-6
R1402	B-6
R1403	B-6
R1404	B-6
R1405	C-6
R1406	C-7
R1407	C-7
R1408	A-8
R1409	C-7
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R1412	C-7
R1413	C-7
R1414	A-8
R1415	C-7
R1416	C-7
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R1418	C-7
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R1430	B-7
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R1433	B-6
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R1435	B-5
R1436	B-5
R1437	B-6
R1438	B-6
R1439	B-5
R1440	B-5
R1441	B-5
R1442	C-5
R1443	C-5
R1444	C-6
R1445	C-6
R1446	D-7
R1447	D-6
R1448	D-6
R1449	D-7
R1450	C-5
R1451	D-6
R1452	D-7
R1453	D-6
R1454	D-6
R1455	D-6
R1456	D-6
R1458	D-7
R1460	D-6
R1901	B-2
R1902	B-2
R1903	A-2
R1904	A-2
R1905	A-2
R1906	B-2
R1907	B-2
R1908	A-2
R1909	B-2
R1911	B-2
R1912	A-2
R1913	A-2
R1916	A-1
R1917	B-2
R1918	B-1
R1919	B-1
R1920	B-1
R1921	B-1
R1922	B-1
R1923	A-1
R1924	A-1
R1925	A-1
R1926	A-1
VDR001	D-7
X801	C-3
X1401	C-7
X1402	D-7

VC-240 BOARD (SIDE B)

C102	C-11
C103	C-11
C104	C-12
C105	D-11
C106	C-11
C108	C-12
C109	D-11
C110	D-12
C111	D-12
C112	C-11
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C114	D-11
C115	D-12
C116	D-11
C117	D-12
C118	D-11
C119	D-11
C120	D-11
C121	D-11
C122	D-11
C123	D-11
C124	D-11
C125	D-11
C126	D-11
C127	D-12
C128	D-12
C129	D-12
C201	B-15
C202	C-15
C203	A-15
C204	A-15
C204	A-15
C205	A-15
C206	A-15
C207	A-15
C208	C-14
C209	B-14
C210	A-16
C211	B-16
C212	B-16
C213	B-16
C214	B-16
C215	A-16
C216	A-16
C217	B-15
C218	B-14
C219	A-16
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C221	B-14
C222	B-15
C223	B-14
C224	B-14
C225	B-14
C226	A-14
C227	B-15
C230	B-15
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C232	B-15
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C236	B-16
C237	B-15
C238	B-15
C239	B-16
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C241	A-15
C242	B-16
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C244	C-14
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C303	B-13
C304	D-14
C305	B-12
C306	D-13
C307	D-14
C308	C-14
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C311	C-12
C312	C-14
C313	C-14
C314	C-14
C315	C-12
C316	C-12
C317	C-13
C318	C-14
C319	C-14
C320	B-14
C321	B-14
C322	C-14
C323	B-13
C324	C-12
C325	C-12
C326	C-12
C327	B-12
C328	B-12
C329	D-15
C331	E-14
C332	D-15
C333	D-14
C334	B-12
C335	D-14
C337	D-15
C338	D-15
C339	B-13
C340	B-13
C341	B-13
C342	B-12
C343	C-12
C345	B-12
C346	C-14
C348	B-14
C352	D-12
C353	B-13
C501	E-13
C502	E-14
C503	E-14
C504	E-13
C505	D-14
C506	D-13
C507	D-14
C508	E-12
C509	D-13
C714	B-16
C715	B-16
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C936	A-12
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C1103	A-10
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C1108	B-11
C1109	C-10
C1110	B-10
C1111	C-10
C1112	C-10
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C1114	C-11
C1115	C-11
C1116	C-11
C1117	C-11
C1118	C-11
C1119	C-11
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C1128	A-11
C1129	A-11
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C1131	B-11
C1132	B-11
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C1310	B-14
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C1340	B-13
C1341	B-13
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C1802	C-11
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C1812	C-10
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C1814	C-10
C1815	D-9
C1816	E-9
C1817	C-9
C1818	C-10
C1819	C-10
C1820	D-9
C1821	C-10
C1822	D-10
C1824	C-11
CN004	C-9
D201	A-15
D203	A-15
D301	C-14
D302	C-14
D303	C-12
D304	B-12
D1102	A-11
D1103	B-9
D1104	A-10
D1105	B-11
D1106	C-10
D1108	A-16
D1109	A-16
D1110	B-11
D1111	A-16
D1802	D-9
D1805	E-9
D1806	E-9
FB101	C-12
FB201	A-14
FB301	B-12
FB302	D-14
FB303	B-13
FB304	E-15
FB305	B-11
FB306	B-13
FB307	B-13
FB501	E-12
FB901	B-12
FB1101	A-11
FB1301	B-13
FB1801	E-10
IC101	C-11
IC102	D-11
IC201	C-14
IC202	A-15
IC203	A-16
IC204	B-14
IC205	B-15
IC302	C-12
IC361	D-14
IC501	D-13
IC502	D-14
IC703	B-16
IC803	C-14
IC903	A-12
IC1101	A-10
IC1102	A-10
IC1103	C-10
IC1104	B-10
IC1301	A-13
IC1301	C-13
IC1802	C-10
IC1803	D-10
L101	D-11
L101	D-11
L102	D-12
L103	D-10
L201	B-14
L202	A-14
L203	A-15
L303	C-14
L304	C-12
L305	B-13
L306	B-12
L307	E-14
L802	C-14
L901	A-11
L902	A-12
L1301	B-13
L1302	A-13
L1303	A-14
L1304	A-13
L1801	D-10
L1802	D-9
L1803	C-10
Q102	C-11
Q201	A-15
Q202	A-16
Q203	B-15
Q204	B-15
Q301	B-12
Q302	B-13
Q303	B-13
Q304	B-13
Q305	B-13
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Q1109	B-11
Q1110	A-10
Q1111	A-10
Q1112	A-11
Q1113	B-10
Q1114	A-16
Q1115	A-16
Q1116	A-10
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Q1303	A-14
Q1304	A-14
Q1305	A-14
R003	A-12
R009	B-12
R103	C-11
R104	C-11
R105	C-12
R106	D-11
R107	D-11
R108	D-11
R109	D-11
R110	D-11
R112	D-11
R114	D-11
R115	D-11
R116	D-11
R117	D-11
R118	D-11
R119	E-11
R120	E-12
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R123	E-11
R124	E-12
R125	D-12
R126	D-10
R127	D-12
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R263	B-15
R264	B-16
R265	B-16
R266	B-15
R267	B-16
R268	B-15
R269	B-15
R270	B-15
R271	B-15
R272	B-16
R306	B-13
R307	C-14
R310	C-14
R311	C-14
R312	C-14
R313	C-13
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R321	C-13
R322	C-14
R323	C-12
R324	C-12
R325	C-12
R326	C-12
R327	B-12
R328	B-13
R329	B-12
R331	B-13
R332	B-13
R334	B-13
R335	B-13
R336	B-13
R338	B-13
R340	B-13
R341	B-13
R343	B-13
R351	B-12
R356	B-12
R358	B-12
R360	B-12
R361	D-15
R364	D-15
R367	D-15
R368	D-15
R369	D-15
R370	D-15
R371	D-15
R372	D-15
R374	B-11
R375	D-12
R376	D-12
R377	C-13
R378	C-12
R379	C-12
R380	C-14
R381	C-13
R382	C-12
R383	B-12
R384	B-13
R385	B-13
R386	B-13
R387	B-13
R388	B-13
R389	B-12
R390	B-12
R391	B-12
R501	E-13
R502	E-13
R503	E-13
R504	E-13
R505	E-13
R506	E-14
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R508	E-13
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R512	E-12
R513	E-12
R514	D-13
R515	D-13
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R525	D-12
R526	D-12
R527	D-12
R528	D-12
R529	D-12
R530	D-12
R531	E-12
R532	E-14
R904	B-12
R907	A-12
R908	A-12
R909	A-12
R911	A-12
R912	A-12
R916	A-12
R924	B-12
R929	A-12
R930	A-12
R932	B-12
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R1105	B-10
R1106	B-11
R1109	A-10
R1110	A-10
R1111	A-10
R1112	A-10
R1113	A-10
R1114	A-10
R1115	A-11
R1117	B-10
R1118	B-10
R1119	B-10
R1120	B-10
R1121	B-10
R1122	B-10
R1123	B-10
R1124	C-10
R1125	B-10
R1126	B-10
R1127	B-10
R1128	B-10
R1129	B-10
R1130	B-10
R1131	B-10
R1132	B-10
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R1137	B-11
R1137	D-11
R1139	B-10
R1140	C-11
R1141	C-11
R1142	C-11
R1143	C-11
R1144	B-10
R1145	B-10
R1146	A-10
R1147	A-10
R1148	C-10
R1149	B-10
R1150	C-10
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R1152	C-10
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R1156	C-11
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R1166	C-11
R1167	C-11
R1176	C-11
R1178	B-11
R1179	A-10
R1180	A-10
R1188	C-11
R1189	C-11
R1194	A-11
R1195	A-11
R1196	B-11
R1197	A-11
R1198	B-11
R1199	B-11
R1200	B-11
R1201	B-11
R1202	B-11
R1203	A-11
R1204	A-16
R1205	B-11
R1206	B-11
R1207	B-11
R1208	B-11
R1209	B-11
R1210	B-11
R1211	B-11
R1212	B-11
R1213	B-11
R1214	C-11
R1215	B-11
R1216	B-11
R1217	B-11
R1218	A-11
R1219	A-16
R1220	C-11
R1221	A-10
R1222	B-11
R1223	B-11
R1224	B-11
R1225	B-11
R1226	B-11
R1228	A-16
R1229	B-11
R1230	A-16
R1231	A-16
R1232	A-10
R1301	A-14
R1302	A-14
R1304	A-14
R1305	A-14
R1306	A-14
R1307	A-14
R1308	A-14
R1312	A-14
R1313	A-14
R1314	A-14
R1315	A-14
R1316	A-14
R1317	A-14
R1318	A-14
R1319	B-14
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R1322	B-14
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R1325	B-13
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R1330	B-13
R1459	C-10
R1801	C-11
R1802	C-11
R1803	D-11
R1804	C-11
R1805	D-11
R1806	D-10
R1807	C-11
R1808	D-10
R1809	D-10
R1810	D-10
R1811	D-10
R1814	D-10
R1815	D-10
R1816	D-10
R1818	E-9
R1819	D-10
R1820	D-10
R1821	C-10
R1822	C-10
R1823	C-10
R1824	E-9
R1825	D-9
R1826	E-9
R1827	C-9
R1828	C-9
R1830	D-10
R1831	E-9
R1832	D-9
R1833	D-9
X301	C-14
X501	E-13
X1101	A-10
X1102	A-11
X1301	A-13

VC-241 BOARD (SIDE A)

C1001	A-5
C1002	A-5
C1003	B-5
C1004	B-5
C1005	A-5
C1006	A-5
C1007	A-5
C1008	B-5
C1009	B-5
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C1011	B-5
C1012	B-5
C1013	A-5
C1014	A-5
C1015	A-6
C1016	A-6
C1017	A-6
C1018	A-6
C1019	A-6
C1020	A-6
C1021	B-6
C1022	A-6
C1023	A-6
C1024	B-6
C1025	A-6
C1026	A-6
C1027	A-6
C1028	A-6
C1029	A-6
C1030	A-6
C1031	A-7
C1032	A-6
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VDR141	C-7
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X801	C-3

VC-241 BOARD (SIDE B)

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R1215	B-11
R1216	B-11
R1217	B-11
R1218	A-11
R1219	A-16
R122	E-11
R1220	C-11
R1221	A-10
R1222	B-11
R1223	B-11
R1224	B-11
R1225	B-11
R1226	B-11
R1227	A-16
R1228	A-16
R1229	C-11
R123	E-11
R1230	A-16
R1231	A-16
R1232	A-10
R1233	B-10
R124	E-11
R125	D-12
R126	D-10
R127	D-11
R1301	A-14
R1302	A-14
R1304	A-14
R1305	A-14
R1306	A-14
R1307	A-14
R1308	A-14
R1312	A-14
R1313	A-14
R1314	A-14
R1315	A-14
R1316	A-14
R1317	A-14
R1318	A-14
R1319	B-14
R1320	A-14
R1321	A-13
R1322	B-14
R1323	A-13
R1324	A-13
R1325	B-13
R1326	A-13
R1327	B-13
R1328	B-13
R1329	A-13
R1330	B-13
R1801	C-11
R1802	C-11
R1803	D-11
R1804	C-11
R1805	C-11
R1806	D-10
R1807	C-11
R1808	D-10
R1809	D-10
R1810	D-10
R1811	D-10
R1814	D-10
R1815	D-10
R1816	D-10
R1818	E-9
R1818	E-9
R1819	D-10
R1820	D-10
R1821	C-10
R1822	C-10
R1823	C-10
R1824	E-9
R1824	E-9
R1825	E-9
R1825	E-9
R1826	D-9
R1827	C-9
R1828	C-9
R1830	D-10
R1831	E-9
R1831	E-9
R1832	D-9
R1833	D-9
R204	A-15
R206	A-15
R209	A-15
R210	A-15
R211	A-15
R212	A-15
R213	B-15
R214	A-15
R215	A-15
R216	A-15
R217	A-15
R218	A-15
R219	A-15
R220	A-15
R221	A-15
R222	B-16
R223	B-16
R224	A-16
R225	B-16
R226	B-16
R227	B-16
R228	A-16
R229	B-16
R230	A-16
R231	A-16
R232	B-16
R233	B-16
R234	B-16
R235	A-16
R236	B-16
R237	B-16
R238	B-16
R239	B-16
R240	B-16
R241	C-14
R242	A-15
R306	B-13
R307	C-14
R310	C-14
R311	C-14
R312	C-13
R312	C-14
R313	B-13
R314	B-13
R315	B-13
R316	B-13
R317	B-12
R318	C-12
R319	C-12
R320	C-14
R321	B-13
R322	C-14
R323	C-12
R324	C-12
R325	C-12
R326	C-12
R327	B-12
R328	B-13
R329	B-12
R331	B-13
R332	B-12
R334	B-13
R335	B-12
R336	B-13
R338	B-13
R340	B-13
R341	B-13
R343	B-13
R351	B-12
R356	B-12
R358	B-12
R360	B-12
R361	D-15
R364	D-15
R367	D-15
R368	D-15
R369	D-15
R370	D-15
R371	D-15
R372	D-15
R374	B-11
R375	D-12
R376	D-12
R377	B-13
R378	C-12
R379	C-12
R380	C-13
R381	B-13
R382	C-12
R383	B-12
R384	B-13
R385	B-13
R386	B-13
R387	B-13
R388	B-12
R389	B-12
R390	B-12
R391	B-12
R501	E-13
R502	E-13
R503	E-13
R504	E-13
R505	E-13
R506	E-14
R507	E-13
R508	E-13
R509	E-12
R510	E-12
R512	E-12
R513	E-12
R514	D-13
R515	D-13
R516	D-13
R517	D-13
R518	D-13
R519	D-12
R520	D-12
R521	D-12
R522	D-12
R523	D-12
R524	E-12
R525	D-12
R526	D-12
R527	D-13
R528	D-12
R529	D-12
R530	D-12
R531	E-12
R532	E-14
R672	D-15
R712	B-14
R713	B-15
R714	A-14
R715	A-14
R717	A-14
R721	C-14
R904	B-11
R907	A-12
R908	A-12
R909	A-12
R911	A-12
R912	A-12
R916	A-12
R921	C-14
R924	B-12
R929	A-12
R930	A-12
R932	B-12
R936	B-12
R949	B-12
R953	B-12
R954	A-12
R955	A-12
R956	A-12
R957	A-12
R958	A-12
X1101	A-10
X1301	A-13
X301	C-14
X501	E-13
X701	B-14

SECTION 6
REPAIR PARTS LIST

6-2. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: μF
- COILS
  uH: μH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA... , uPA... , μPA... ,
  uPB... , μPB... , uPC... , μPC... ,
  uPD..., μPD...

When indicating parts by reference number, please include the board name.

- Abbreviation
  AUS: Australian model
  JE: Tourist model
  CND: Canadian model
  CN: Chinese model
  HK: Hong Kong model

Ref. No.	Part No.	Description			Remarks
	A-7094-887-A	VC-240(H) BOARD, COMPLETE (SERVICE) (TRV20/TRV20E)			
		***************************************			
		(Ref.No.;10000Series)			
		< CAPACITOR >			
C102	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C103	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C104	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C105	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C106	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C108	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C109	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C110	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C111	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C112	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C113	1-164-866-11	CERAMIC CHIP	47PF	5%	16V
C114	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C115	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C116	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C117	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C118	1-164-866-11	CERAMIC CHIP	47PF	5%	16V
C119	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C120	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C121	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C122	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C123	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C124	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C125	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C127	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C128	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C129	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C201	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C202	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C203	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C204	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C205	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C206	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C207	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C208	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C209	1-113-682-11	TANTAL. CHIP	33uF	20%	10V
C210	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C211	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C212	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C213	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C214	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C216	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C219	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C220	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C221	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C222	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C223	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C224	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C225	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C226	1-119-749-11	TANTAL. CHIP	33uF	20%	4V
C227	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C231	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C232	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C233	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C234	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C235	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C236	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C237	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C238	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C240	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C241	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
C242	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C301	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C302	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C303	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C304	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C305	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C306	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C307	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C308	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C309	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C310	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C311	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C312	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C313	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C314	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C315	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C316	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C317	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C318	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C319	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C320	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C321	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C322	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C323	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C324	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V

Ref. No.	Part No.	Description			Remarks
C325	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C326	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C327	1-131-862-91	TANTAL. CHIP	47uF	20%	4V
C328	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C329	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C331	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C332	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C333	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C334	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C335	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C337	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C338	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C341	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C342	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C343	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C345	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C346	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C348	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C352	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C353	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C401	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C402	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C403	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C404	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C405	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C406	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C407	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C408	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C409	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C410	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C411	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C414	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C415	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C416	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C418	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C419	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C420	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C421	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C422	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C423	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C424	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C425	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C426	1-127-578-91	TANTAL. CHIP	3.3uF	20%	6.3V
C427	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C428	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C429	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C430	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C431	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C432	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C433	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C434	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C435	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C436	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C437	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C438	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			Remarks
C501	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C502	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C503	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C504	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C505	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C506	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C507	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C508	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C509	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C701	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C702	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C703	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C704	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C705	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C710	1-113-988-11	TANTAL. CHIP	68uF	20%	4V
C711	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C712	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C714	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C715	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C751	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C752	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C753	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C754	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C755	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C757	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C758	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C759	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C760	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C761	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C762	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C801	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C802	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C803	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C804	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C805	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C806	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C807	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C808	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C809	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C810	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C811	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C901	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C903	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C904	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C908	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C910	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C911	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C912	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C913	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C914	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C915	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C916	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C917	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C918	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C919	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V

Ref. No.	Part No.	Description			Remarks
C920	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C921	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C922	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C926	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C928	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C929	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C930	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C931	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C932	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C933	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C934	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C935	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
C936	1-164-866-11	CERAMIC CHIP	47PF	5%	16V
C1001	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1002	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1003	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1004	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1005	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C1006	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C1007	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1008	1-113-600-11	TANTAL. CHIP	2.2uF	20%	6.3V
C1009	1-117-920-11	TANTAL. CHIP	10uF	20%	6.3V
C1010	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1011	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1012	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1013	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1014	1-131-623-91	TANTAL. CHIP	15uF	20%	4V
C1015	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1016	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1017	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1018	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1019	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1020	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1021	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1022	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1023	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1024	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1025	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1026	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1027	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1028	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1029	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1031	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1033	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C1036	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1038	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C1054	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1101	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1102	1-115-156-11	CERAMIC CHIP	1uF		10V
C1103	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C1104	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1105	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1106	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1107	1-119-749-11	TANTAL. CHIP	33uF	20%	4V
C1108	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			Remarks
C1109	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1110	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1111	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1112	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1113	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1114	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1115	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1116	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1117	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1118	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1119	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1120	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C1127	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C1128	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
C1129	1-164-854-11	CERAMIC CHIP	15PF	5%	16V
C1130	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1131	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1132	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1301	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1304	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1305	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1306	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1307	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1308	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1309	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C1310	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1311	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1312	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1313	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1314	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1315	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1316	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1321	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1322	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1328	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1329	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1330	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C1331	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C1332	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1337	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1338	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1339	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C1340	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C1341	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
C1401	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1402	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1403	1-164-315-11	CERAMIC CHIP	470PF	2.00%	50V
C1404	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1405	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C1406	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C1407	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C1408	1-125-926-91	TANTAL. CHIP	4.7uF	20%	6.3V
C1409	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C1410	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C1411	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			Remarks
C1412	1-125-926-91	TANTAL. CHIP	4.7uF	20%	6.3V
C1413	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1414	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1415	1-125-926-91	TANTAL. CHIP	4.7uF	20%	6.3V
C1416	1-125-926-91	TANTAL. CHIP	4.7uF	20%	6.3V
C1417	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C1418	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C1419	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1421	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1422	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1423	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1424	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1425	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1426	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1427	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1428	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1801	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1802	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1805	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1806	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1807	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1808	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1810	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C1811	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1812	1-107-687-11	TANTAL. CHIP	3.3uF	20%	20V
C1813	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C1814	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C1815	1-164-862-11	CERAMIC CHIP	33PF	5%	16V
C1816	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1817	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1818	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1819	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1820	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1822	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C1823	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C1824	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1902	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1903	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1904	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1905	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1906	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1907	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1908	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1909	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1910	1-125-926-91	TANTAL. CHIP	4.7uF	20%	6.3V
C1911	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1912	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1913	1-164-668-11	CERAMIC CHIP	510PF	5%	50V
C1914	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1915	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1916	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1917	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C1918	1-164-844-11	CERAMIC CHIP	4PF	0.25PF	16V
C1919	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1920	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V

Ref. No.	Part No.	Description			Remarks
C1921	1-164-862-11	CERAMIC CHIP	33PF	5%	16V
C1922	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1923	1-164-864-11	CERAMIC CHIP	39PF	5%	16V
C1924	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1925	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C1926	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1927	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1928	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1929	1-127-895-91	TANTAL. CHIP	22uF	20%	4V
C1930	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1931	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1932	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V

< CONNECTOR >

CN001	1-784-938-21	CONNECTOR, BOARD TO BOARD 60P
CN002	1-779-521-11	CONNECTOR, BOARD TO BOARD 80P
CN003	1-784-424-21	CONNECTOR, FFC/FPC (ZIF) 51P
CN005	1-766-340-21	CONNECTOR, FFC/FPC 10P
CN006	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 27P
CN007	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 27P
CN008	1-784-423-21	CONNECTOR, FFC/FPC (ZIF) 39P
CN009	1-750-303-41	CONNECTOR, BOARD TO BOARD 20P
CN101	1-691-374-11	CONNECTOR, FFC/FPC 10P
CN701	1-784-938-21	CONNECTOR, BOARD TO BOARD 60P

< DIODE >

D001	8-719-077-51	DIODE	MAZR08200AS0
D002	8-719-077-57	DIODE	DF3A8.2C(TPL3)
D003	8-719-077-57	DIODE	DF3A8.2C(TPL3)
D004	8-719-077-57	DIODE	DF3A8.2C(TPL3)
D005	8-719-077-57	DIODE	DF3A8.2C(TPL3)
D006	8-719-077-57	DIODE	DF3A8.2C(TPL3)
D201	8-719-075-62	DIODE	1SS401(TE85L)
D203	8-719-077-51	DIODE	MA4L11100AS0
D301	8-719-992-02	DIODE	RB705D-T146
D302	8-719-055-86	DIODE	KV1470TL1-3
D303	8-719-992-02	DIODE	RB705D-T146
D304	8-719-055-86	DIODE	KV1470TL1-3
D1102	8-719-077-51	DIODE	MA4L11100AS0
D1103	8-719-077-51	DIODE	MA4L11100AS0
D1104	8-719-077-48	DIODE	MA4L72800AS0
D1105	8-719-077-51	DIODE	MA4L11100AS0
D1106	8-719-077-51	DIODE	MA4L11100AS0
D1108	8-719-077-51	DIODE	MA4L11100AS0
D1109	8-719-077-51	DIODE	MAZR08200AS0
D1110	8-719-077-48	DIODE	MA4L72800AS0
D1111	8-719-077-48	DIODE	MA4L72800AS0
D1402	8-719-077-51	DIODE	MA4L11100AS0
D1802	8-713-102-80	DIODE	1T369-01-T8A
D1805	8-719-078-14	DIODE	MA4L78400AS0
D1806	8-719-078-14	DIODE	MA4L78400AS0

< FERRITE BEAD >

FB001	1-500-444-11	FERRITE	0UH
FB002	1-500-444-11	FERRITE	0UH
FB003	1-500-444-11	FERRITE	0UH
FB004	1-500-444-11	FERRITE	0UH
FB101	1-469-676-22	FERRITE	0UH

Ref. No.	Part No.	Description	Remarks
FB201	1-469-676-22	FERRITE 0UH	
FB301	1-469-676-22	FERRITE 0UH	
FB302	1-469-676-22	FERRITE 0UH	
FB303	1-469-676-22	FERRITE 0UH	
FB304	1-469-676-22	FERRITE 0UH	
FB305	1-469-676-22	FERRITE 0UH	
FB306	1-469-676-22	FERRITE 0UH	
FB307	1-469-676-22	FERRITE 0UH	
FB501	1-469-676-22	FERRITE 0UH	
FB701	1-469-676-22	FERRITE 0UH	
FB702	1-469-676-22	FERRITE 0UH	
FB703	1-469-676-22	FERRITE 0UH	
FB751	1-469-676-22	FERRITE 0UH	
FB752	1-469-676-22	FERRITE 0UH	
FB753	1-543-960-22	FERRITE 0UH	
FB755	1-500-284-21	INDUCTOR CHIP 0UH	
FB756	1-500-284-21	INDUCTOR CHIP 0UH	
FB901	1-469-676-22	FERRITE 0UH	
FB1002	1-469-676-22	FERRITE 0UH	
FB1101	1-469-676-22	FERRITE 0UH	
FB1301	1-469-676-22	FERRITE 0UH	
FB1401	1-469-676-22	FERRITE 0UH	
FB1402	1-469-676-22	FERRITE 0UH	
FB1403	1-469-676-22	FERRITE 0UH	
FB1404	1-469-676-22	FERRITE 0UH	
FB1405	1-469-676-22	FERRITE 0UH	
FB1406	1-469-676-22	FERRITE 0UH	
FB1407	1-500-282-11	INDUCTOR CHIP 0UH	
FB1801	1-469-676-22	FERRITE 0UH	

< IC >

Ref. No.	Part No.	Description	Remarks
IC101	8-752-086-52	IC CXA2071R-T4	
IC102	8-752-086-53	IC CXA2072R-T4	
IC201	8-759-637-96	IC uPD16877MA-6A5-E2	
IC202	8-759-444-87	IC NJM324V(TE2)	
IC203	8-759-444-87	IC NJM324V(TE2)	
IC204	8-759-662-18	IC CXD9571R-TEB	
IC205	8-759-444-87	IC NJM324V(TE2)	
IC301	8-759-650-63	IC CAIN-CSP	
IC302	8-759-641-50	IC MB90099PFV-G-102-BND-ER	
IC361	8-759-679-38	IC SN104266AGGM-TEB	
IC401	8-759-652-08	IC CXA8099ER-TBM	
IC402	8-759-657-68	IC SC111319FTBEB	
IC501	8-759-670-21	IC MB91192LGA-G-107-ER	
IC502	8-759-593-47	IC AK6417AM-E2	
IC701	8-759-638-67	IC AD80014JSTRL	
IC702	8-759-639-27	IC MSM56V16160D-10LSFS1	
IC703	8-759-664-15	IC NJU7241F34(TE2)	
IC751	8-752-404-31	IC CXD3148AGA-T6	
IC752	8-759-645-31	IC RN5RZ25BA-TL	
IC801	8-759-566-18	IC AK6480BH-E2	
IC802	8-752-914-45	IC CXP972048-012GA-T6	
IC803	8-759-426-25	IC MB88346LPFV-G-BND-ER	
IC903	8-759-653-59	IC MB87L1241LGA-G-ER	
IC1001	8-759-654-30	IC LA74204FN-TBM	
IC1002	8-759-647-71	IC AK4550VT-E2	
IC1101	8-759-653-63	IC S-817A36ANB-CUZ-T2	
IC1102	8-759-424-79	IC S-8423YFS-T2	
IC1103	8-759-642-45	IC TL1596CPWR	
IC1104	8-752-914-70	IC CXP921064A-007GA-T6	
IC1301	8-759-599-37	IC AN2225FHQ-EB	
IC1402	8-759-234-20	IC TC7S08F(TE85R)	
IC1403	8-759-495-15	IC uPD4721GS-GJG-E2	
IC1404	8-759-645-93	IC MB81F641642G-15PB-ER-WJ	
IC1405	8-759-327-60	IC TC7W125FU-TE12R	
IC1406	8-759-566-20	IC AK6440BH-E2	
IC1407	8-759-642-42	IC RC5V834/E2	
IC1408	8-759-643-81	IC MSM51V18160DSL-6LFS1	
IC1409	8-759-584-32	IC MB86189PFV-G-BND-ER	
IC1410	8-759-058-60	IC TC7SU04FU(TE85R)	
IC1411	8-759-644-18	IC ML2201-100MBZ060	
IC1412	8-759-670-77	IC HD6437044P14XSZ	
IC1802	8-759-660-93	IC RB5P004AM1	
IC1803	8-752-400-96	IC CXD3501R-T4	
IC1901	8-759-498-52	IC LA9511W-TBM	

< COIL >

Ref. No.	Part No.	Description	Remarks
L001	1-414-770-91	INDUCTOR CHIP 4.7uH	
L101	1-469-525-91	INDUCTOR 10uH	
L102	1-469-525-91	INDUCTOR 10uH	
L103	1-469-525-91	INDUCTOR 10uH	
L201	1-469-525-91	INDUCTOR 10uH	
L202	1-414-771-91	INDUCTOR CHIP 10uH	
L203	1-414-771-91	INDUCTOR CHIP 10uH	
L303	1-412-936-11	INDUCTOR 0.56uH	
L304	1-414-246-11	INDUCTOR 1.8uH	
L305	1-414-771-91	INDUCTOR CHIP 10uH	
L306	1-414-771-91	INDUCTOR CHIP 10uH	
L307	1-469-525-91	INDUCTOR 10uH	
L401	1-414-771-91	INDUCTOR CHIP 10uH	
L402	1-414-771-91	INDUCTOR CHIP 10uH	
L701	1-414-771-91	INDUCTOR CHIP 10uH	
L751	1-414-771-91	INDUCTOR CHIP 10uH	
L801	1-469-525-91	INDUCTOR 10uH	
L802	1-414-771-91	INDUCTOR CHIP 10uH	
L901	1-414-771-91	INDUCTOR CHIP 10uH	
L902	1-414-771-91	INDUCTOR CHIP 10uH	
L1001	1-414-771-91	INDUCTOR CHIP 10uH	
L1003	1-469-058-11	INDUCTOR CHIP 22uH	
L1301	1-469-525-91	INDUCTOR 10uH	
L1302	1-414-771-91	INDUCTOR CHIP 10uH	
L1304	1-414-771-91	INDUCTOR CHIP 10uH	
L1802	1-412-947-11	INDUCTOR 4.7uH	
L1801	1-414-771-91	INDUCTOR CHIP 10uH	
L1803	1-414-771-91	INDUCTOR CHIP 10uH	
L1901	1-412-948-11	INDUCTOR 5.6uH	
L1902	1-469-098-91	INDUCTOR 33uH	
L1903	1-469-098-91	INDUCTOR 33uH	
L1904	1-469-525-91	INDUCTOR 10uH	

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< TRANSISTOR >

Ref. No.	Part No.	Description		Remarks
Q001	8-729-050-89	TRANSISTOR	UNRL21100AS0	
Q002	8-729-028-27	TRANSISTOR	2SK2009(TE85L)	
Q003	8-729-050-89	TRANSISTOR	UNRL21100AS0	
Q004	8-729-050-89	TRANSISTOR	UNRL21100AS0	
Q102	8-729-050-74	TRANSISTOR	EC3101C-PM-TL	
Q201	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q202	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q203	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q204	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q302	8-729-050-74	TRANSISTOR	EC3101C-PM-TL	
Q304	8-729-050-74	TRANSISTOR	EC3101C-PM-TL	
Q306	8-729-050-74	TRANSISTOR	EC3101C-PM-TL	
Q401	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q402	8-729-049-91	TRANSISTOR	2SA2018H-T2L	
Q801	8-729-050-79	TRANSISTOR	UNRL11100AS0	
Q902	8-729-050-74	TRANSISTOR	EC3101C-PM-TL	
Q903	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q904	8-729-049-91	TRANSISTOR	2SA2018H-T2L	
Q905	8-729-050-91	TRANSISTOR	UNRL21300AS0	
Q906	8-729-050-74	TRANSISTOR	EC3101C-PM-TL	
Q1001	8-729-050-98	TRANSISTOR	UNRL21000AS0	
Q1002	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q1003	8-729-050-98	TRANSISTOR	UNRL21000AS0	
Q1004	8-729-050-83	TRANSISTOR	UNRL11500AS0	
Q1005	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q1006	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q1007	8-729-050-83	TRANSISTOR	UNRL11500AS0	
Q1008	8-729-050-91	TRANSISTOR	UNRL21300AS0	
Q1009	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q1010	8-729-050-83	TRANSISTOR	UNRL11500AS0	
Q1011	8-729-024-39	TRANSISTOR	2SD1511-R/S(TX)	
Q1101	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q1102	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q1103	8-729-050-91	TRANSISTOR	UNRL21300AS0	
Q1104	8-729-041-43	TRANSISTOR	HN1L02FU(TE85R)	
Q1105	8-729-050-91	TRANSISTOR	UNRL21300AS0	
Q1106	8-729-050-79	TRANSISTOR	UNRL11100AS0	
Q1107	8-729-050-74	TRANSISTOR	EC3101C-PM-TL	
Q1108	8-729-050-81	TRANSISTOR	UNRL11300AS0	
Q1109	8-729-049-91	TRANSISTOR	2SA2018H-T2L	
Q1110	8-729-050-89	TRANSISTOR	RN1104C(TPL3)	
Q1111	8-729-050-81	TRANSISTOR	RN2104C(TPL3)	
Q1112	8-729-050-74	TRANSISTOR	EC3101C-PM-TL	
Q1113	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q1114	8-729-050-74	TRANSISTOR	2SB1462L0AS0	
Q1115	8-729-050-98	TRANSISTOR	RN1113C(TPL3)	
Q1116	8-729-050-88	TRANSISTOR	RN2113C(TPL3)	
Q1301	8-729-050-76	TRANSISTOR	EC3201C-PM-TL	
Q1401	8-729-050-91	TRANSISTOR	UNRL21300AS0	
Q1403	8-729-050-81	TRANSISTOR	UNRL11300AS0	
Q1404	8-729-050-89	TRANSISTOR	UNRL21100AS0	
Q1405	8-729-050-74	TRANSISTOR	EC3101C-PM-TL	
Q1407	8-729-050-91	TRANSISTOR	UNRL21300AS0	
Q1408	8-729-050-91	TRANSISTOR	UNRL21300AS0	
Q1901	8-729-050-74	TRANSISTOR	EC3101C-PM-TL	
Q1902	8-729-122-63	TRANSISTOR	2SA1226-T1E3E4	

< RESISTOR >

Ref. No.	Part No.	Description			Remarks
R001	1-218-935-11	RES-CHIP	33	5%	1/16W
R002	1-218-935-11	RES-CHIP	33	5%	1/16W
R005	1-218-950-11	RES-CHIP	560	5%	1/16W
R006	1-218-950-11	RES-CHIP	560	5%	1/16W
R007	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R010	1-218-977-11	RES-CHIP	100K	5%	1/16W
R103	1-218-965-11	RES-CHIP	10K	5%	1/16W
R104	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R105	1-218-990-11	SHORT	0		
R106	1-218-989-11	RES-CHIP	1M	5%	1/16W
R107	1-218-979-11	RES-CHIP	150K	5%	1/16W
R108	1-218-966-11	RES-CHIP	12K	5%	1/16W
R109	1-218-965-11	RES-CHIP	10K	5%	1/16W
R110	1-218-949-11	RES-CHIP	470	5%	1/16W
R112	1-218-966-11	RES-CHIP	12K	5%	1/16W
R113	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R114	1-218-965-11	RES-CHIP	10K	5%	1/16W
R115	1-218-969-11	RES-CHIP	22K	5%	1/16W
R116	1-208-910-11	METAL CHIP	9.1K	0.5%	1/16W
R117	1-208-910-11	METAL CHIP	9.1K	0.5%	1/16W
R118	1-218-969-11	RES-CHIP	22K	5%	1/16W
R120	1-218-945-11	METAL CHIP	220	0.5%	1/16W
R122	1-218-945-11	METAL CHIP	220	0.5%	1/16W
R123	1-218-945-11	METAL CHIP	220	0.5%	1/16W
R124	1-218-945-11	METAL CHIP	220	0.5%	1/16W
R125	1-216-864-11	METAL CHIP	0	5%	1/16W
R126	1-216-864-11	METAL CHIP	0	5%	1/16W
R127	1-218-939-11	RES-CHIP	68	5%	1/16W
R202	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R203	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R204	1-216-001-00	METAL CHIP	10	5%	1/10W
R206	1-218-953-11	RES-CHIP	1K	5%	1/16W
R209	1-218-977-11	RES-CHIP	100K	5%	1/16W
R210	1-218-977-11	RES-CHIP	100K	5%	1/16W
R211	1-218-965-11	RES-CHIP	10K	5%	1/16W
R212	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R213	1-218-990-11	SHORT	0		
R215	1-218-973-11	RES-CHIP	47K	5%	1/16W
R216	1-218-990-11	SHORT	0		
R218	1-218-990-11	SHORT	0		
R219	1-218-990-11	SHORT	0		
R220	1-218-990-11	SHORT	0		
R222	1-218-969-11	RES-CHIP	22K	5%	1/16W
R223	1-218-969-11	RES-CHIP	22K	5%	1/16W
R224	1-218-947-11	RES-CHIP	330	5%	1/16W
R225	1-218-977-11	RES-CHIP	100K	5%	1/16W
R226	1-218-969-11	RES-CHIP	22K	5%	1/16W
R227	1-218-977-11	RES-CHIP	100K	5%	1/16W
R228	1-218-969-11	RES-CHIP	22K	5%	1/16W
R230	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R231	1-218-966-11	RES-CHIP	12K	5%	1/16W
R232	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R233	1-218-980-11	RES-CHIP	180K	5%	1/16W
R234	1-218-980-11	RES-CHIP	180K	5%	1/16W
R235	1-218-965-11	RES-CHIP	10K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R236	1-218-980-11	RES-CHIP	180K	5%	1/16W
R237	1-218-965-11	RES-CHIP	10K	5%	1/16W
R238	1-218-965-11	RES-CHIP	10K	5%	1/16W
R239	1-218-969-11	RES-CHIP	22K	5%	1/16W
R240	1-218-965-11	RES-CHIP	10K	5%	1/16W
R241	1-218-965-11	RES-CHIP	10K	5%	1/16W
R242	1-218-969-11	RES-CHIP	22K	5%	1/16W
R243	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R244	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R245	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R246	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R247	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R248	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R249	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R250	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R251	1-218-970-11	RES-CHIP	27K	5%	1/16W
R252	1-218-965-11	RES-CHIP	10K	5%	1/16W
R255	1-218-953-11	RES-CHIP	1K	5%	1/16W
R256	1-218-989-11	RES-CHIP	1M	5%	1/16W
R257	1-218-969-11	RES-CHIP	22K	5%	1/16W
R258	1-218-965-11	RES-CHIP	10K	5%	1/16W
R259	1-218-981-11	RES-CHIP	220K	5%	1/16W
R260	1-218-985-11	RES-CHIP	470K	5%	1/16W
R261	1-218-973-11	RES-CHIP	47K	5%	1/16W
R262	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R263	1-218-969-11	RES-CHIP	22K	5%	1/16W
R264	1-218-967-11	RES-CHIP	15K	5%	1/16W
R265	1-218-953-11	RES-CHIP	1K	5%	1/16W
R266	1-218-969-11	RES-CHIP	22K	5%	1/16W
R267	1-218-953-11	RES-CHIP	1K	5%	1/16W
R268	1-218-947-11	RES-CHIP	330	5%	1/16W
R269	1-218-973-11	RES-CHIP	47K	5%	1/16W
R270	1-218-953-11	RES-CHIP	1K	5%	1/16W
R271	1-218-965-11	RES-CHIP	10K	5%	1/16W
R272	1-218-985-11	RES-CHIP	470K	5%	1/16W
R305	1-218-990-11	SHORT	0		
R306	1-218-990-11	SHORT	0		
R310	1-218-965-11	RES-CHIP	10K	5%	1/16W
R311	1-218-965-11	RES-CHIP	10K	5%	1/16W
R312	1-218-946-11	RES-CHIP	270	5%	1/16W
R313	1-218-990-11	SHORT	0		
R314	1-218-990-11	SHORT	0		
R315	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R316	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R317	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R318	1-218-965-11	RES-CHIP	10K	5%	1/16W
R319	1-218-965-11	RES-CHIP	10K	5%	1/16W
R320	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R321	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R322	1-218-941-11	RES-CHIP	100	5%	1/16W
R323	1-218-947-11	RES-CHIP	330	5%	1/16W
R324	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R325	1-218-937-11	RES-CHIP	47	5%	1/16W
R326	1-218-990-11	SHORT	0		
R327	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R328	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R331	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R332	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R334	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R336	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R338	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R340	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R343	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R351	1-218-946-11	RES-CHIP	270	5%	1/16W
R358	1-218-943-11	RES-CHIP	150	5%	1/16W
R361	1-208-709-11	METAL CHIP	12K	0.5%	1/16W
R364	1-208-709-11	METAL CHIP	12K	0.5%	1/16W
R367	1-218-938-11	METAL CHIP	56	0.5%	1/16W
R368	1-218-938-11	METAL CHIP	56	0.5%	1/16W
R369	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R370	1-218-938-11	METAL CHIP	56	0.5%	1/16W
R371	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R372	1-218-938-11	METAL CHIP	56	0.5%	1/16W
R374	1-218-965-11	RES-CHIP	10K	5%	1/16W
R375	1-218-965-11	RES-CHIP	10K	5%	1/16W
R376	1-218-953-11	RES-CHIP	1K	5%	1/16W
R377	1-218-941-11	RES-CHIP	100	5%	1/16W
R378	1-218-941-11	RES-CHIP	100	5%	1/16W
R379	1-218-941-11	RES-CHIP	100	5%	1/16W
R380	1-218-941-11	RES-CHIP	100	5%	1/16W
R381	1-218-941-11	RES-CHIP	100	5%	1/16W
R382	1-218-990-11	SHORT	0		
R383	1-218-990-11	SHORT	0		
R387	1-218-990-11	SHORT	0		
R388	1-218-990-11	SHORT	0		
R389	1-218-990-11	SHORT	0		
R390	1-218-990-11	SHORT	0		
R391	1-218-990-11	SHORT	0		
R401	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R402	1-218-965-11	RES-CHIP	10K	5%	1/16W
R403	1-218-965-11	RES-CHIP	10K	5%	1/16W
R404	1-218-975-11	RES-CHIP	68K	5%	1/16W
R405	1-218-967-11	RES-CHIP	15K	5%	1/16W
R406	1-217-671-11	METAL CHIP	1	5%	1/10W
R407	1-217-671-11	METAL CHIP	1	5%	1/10W
R408	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R409	1-218-977-11	RES-CHIP	100K	5%	1/16W
R410	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R411	1-218-968-11	RES-CHIP	18K	5%	1/16W
R412	1-218-990-11	SHORT	0		
R416	1-218-965-11	RES-CHIP	10K	5%	1/16W
R417	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R418	1-218-977-11	RES-CHIP	100K	5%	1/16W
R419	1-218-969-11	RES-CHIP	22K	5%	1/16W
R421	1-217-671-11	METAL CHIP	1	5%	1/10W
R422	1-217-671-11	METAL CHIP	1	5%	1/10W
R423	1-217-671-11	METAL CHIP	1	5%	1/10W
R424	1-218-941-11	RES-CHIP	100	5%	1/16W
R426	1-218-977-11	RES-CHIP	100K	5%	1/16W
R427	1-218-977-11	RES-CHIP	100K	5%	1/16W
R428	1-218-977-11	RES-CHIP	100K	5%	1/16W
R429	1-218-989-11	RES-CHIP	1M	5%	1/16W
R430	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R431	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R432	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R433	1-218-972-11	RES-CHIP	39K	5%	1/16W
R434	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R436	1-218-990-11	SHORT	0		
R437	1-208-687-11	METAL CHIP	1.5K	0.5%	1/16W
R501	1-218-977-11	RES-CHIP	100K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R502	1-218-977-11	RES-CHIP	100K	5%	1/16W
R503	1-218-977-11	RES-CHIP	100K	5%	1/16W
R504	1-218-977-11	RES-CHIP	100K	5%	1/16W
R505	1-218-985-11	RES-CHIP	470K	5%	1/16W
R507	1-218-953-11	RES-CHIP	1K	5%	1/16W
R508	1-218-985-11	RES-CHIP	470K	5%	1/16W
R509	1-218-985-11	RES-CHIP	470K	5%	1/16W
R510	1-218-985-11	RES-CHIP	470K	5%	1/16W
R512	1-218-985-11	RES-CHIP	470K	5%	1/16W
R513	1-218-953-11	RES-CHIP	1K	5%	1/16W
R514	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R515	1-218-990-11	SHORT	0		
R516	1-218-977-11	RES-CHIP	100K	5%	1/16W
R517	1-208-931-11	METAL CHIP	68K	0.5%	1/16W
R518	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R519	1-218-953-11	RES-CHIP	1K	5%	1/16W
R520	1-218-943-11	RES-CHIP	150	5%	1/16W
R521	1-218-945-11	RES-CHIP	220	5%	1/16W
R522	1-218-943-11	RES-CHIP	150	5%	1/16W
R523	1-218-945-11	RES-CHIP	220	5%	1/16W
R524	1-218-965-11	RES-CHIP	10K	5%	1/16W
R525	1-218-965-11	RES-CHIP	10K	5%	1/16W
R526	1-218-985-11	RES-CHIP	470K	5%	1/16W
R527	1-218-977-11	RES-CHIP	100K	5%	1/16W
R528	1-218-977-11	RES-CHIP	100K	5%	1/16W
R529	1-218-977-11	RES-CHIP	100K	5%	1/16W
R530	1-218-977-11	RES-CHIP	100K	5%	1/16W
R531	1-218-985-11	RES-CHIP	470K	5%	1/16W
R532	1-218-977-11	RES-CHIP	100K	5%	1/16W
R707	1-218-990-11	SHORT	0		
R710	1-218-990-11	SHORT	0		
R751	1-218-941-11	RES-CHIP	100	5%	1/16W
R758	1-218-941-11	RES-CHIP	100	5%	1/16W
R759	1-218-990-11	SHORT	0		
R801	1-218-977-11	RES-CHIP	100K	5%	1/16W
R802	1-218-977-11	RES-CHIP	100K	5%	1/16W
R803	1-218-973-11	RES-CHIP	47K	5%	1/16W
R804	1-218-953-11	RES-CHIP	1K	5%	1/16W
R805	1-218-973-11	RES-CHIP	47K	5%	1/16W
R806	1-218-985-11	RES-CHIP	470K	5%	1/16W
R807	1-218-973-11	RES-CHIP	47K	5%	1/16W
R808	1-218-977-11	RES-CHIP	100K	5%	1/16W
R809	1-218-953-11	RES-CHIP	1K	5%	1/16W
R810	1-218-985-11	RES-CHIP	470K	5%	1/16W
R811	1-218-973-11	RES-CHIP	47K	5%	1/16W
R812	1-218-977-11	RES-CHIP	100K	5%	1/16W
R813	1-218-977-11	RES-CHIP	100K	5%	1/16W
R814	1-218-977-11	RES-CHIP	100K	5%	1/16W
R815	1-218-977-11	RES-CHIP	100K	5%	1/16W
R819	1-218-953-11	RES-CHIP	1K	5%	1/16W
R820	1-218-989-11	RES-CHIP	1M	5%	1/16W
R821	1-218-973-11	RES-CHIP	47K	5%	1/16W
R822	1-218-973-11	RES-CHIP	47K	5%	1/16W
R823	1-218-953-11	RES-CHIP	1K	5%	1/16W
R824	1-218-977-11	RES-CHIP	100K	5%	1/16W
R826	1-218-990-11	SHORT	0		
R827	1-218-953-11	RES-CHIP	1K	5%	1/16W
R829	1-218-989-11	RES-CHIP	1M	5%	1/16W
R831	1-218-977-11	RES-CHIP	100K	5%	1/16W
R832	1-218-989-11	RES-CHIP	1M	5%	1/16W
R835	1-218-953-11	RES-CHIP	1K	5%	1/16W
R836	1-218-977-11	RES-CHIP	100K	5%	1/16W
R837	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R838	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R839	1-218-953-11	RES-CHIP	1K	5%	1/16W
R842	1-218-985-11	RES-CHIP	470K	5%	1/16W
R843	1-218-977-11	RES-CHIP	100K	5%	1/16W
R904	1-218-990-11	SHORT	0		
R907	1-218-965-11	RES-CHIP	10K	5%	1/16W
R908	1-218-965-11	RES-CHIP	10K	5%	1/16W
R909	1-218-973-11	RES-CHIP	47K	5%	1/16W
R911	1-218-951-11	RES-CHIP	680	5%	1/16W
R912	1-218-965-11	RES-CHIP	10K	5%	1/16W
R916	1-218-949-11	RES-CHIP	470	5%	1/16W
R924	1-218-990-11	SHORT	0		
R929	1-218-977-11	RES-CHIP	100K	5%	1/16W
R949	1-218-990-11	SHORT	0		
R953	1-218-990-11	SHORT	0		
R954	1-218-941-11	RES-CHIP	100	5%	1/16W
R955	1-218-977-11	RES-CHIP	100K	5%	1/16W
R956	1-218-960-11	RES-CHIP	3.9K	5%	1/16W
R957	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R958	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1001	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1005	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1006	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1007	1-218-937-11	RES-CHIP	47	5%	1/16W
R1008	1-218-937-11	RES-CHIP	47	5%	1/16W
R1009	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1010	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1012	1-218-937-11	RES-CHIP	47	5%	1/16W
R1013	1-218-937-11	RES-CHIP	47	5%	1/16W
R1014	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1015	1-218-960-11	RES-CHIP	3.9K	5%	1/16W
R1016	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1017	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1019	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1020	1-218-971-11	RES-CHIP	33K	5%	1/16W
R1021	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1022	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1023	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1024	1-218-979-11	RES-CHIP	150K	5%	1/16W
R1025	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1026	1-218-949-11	RES-CHIP	470	5%	1/16W
R1027	1-218-969-11	RES-CHIP	22K	5%	1/16W
R1029	1-218-949-11	RES-CHIP	470	5%	1/16W
R1030	1-218-949-11	RES-CHIP	470	5%	1/16W
R1031	1-218-990-11	SHORT	0		
R1032	1-218-990-11	SHORT	0		
R1033	1-218-990-11	SHORT	0		
R1034	1-218-990-11	SHORT	0		
R1035	1-218-990-11	SHORT	0		
R1036	1-218-990-11	SHORT	0		
R1037	1-218-990-11	SHORT	0		
R1038	1-218-990-11	SHORT	0		
R1039	1-218-990-11	SHORT	0		
R1103	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1104	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1106	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1109	1-218-934-11	RES-CHIP	27	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R1110	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1111	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1112	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1113	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1114	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1115	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1117	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1118	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1119	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1120	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1121	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1122	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1123	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1124	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1126	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1127	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1128	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1129	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1130	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1131	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1132	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1133	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1134	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1137	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R1139	1-218-989-11	RES-CHIP	1M	5%	1/16W
R1140	1-218-985-11	METAL CHIP	470K	0.5%	1/16W
R1141	1-218-985-11	METAL CHIP	470K	0.5%	1/16W
R1142	1-218-989-11	METAL CHIP	1M	0.5%	1/16W
R1143	1-218-989-11	METAL CHIP	1M	0.5%	1/16W
R1144	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1145	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1146	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1147	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1148	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1149	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1150	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1151	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1152	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1153	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1154	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1155	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1156	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1157	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1161	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1162	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1163	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1165	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1166	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1167	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1176	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1178	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1179	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1180	1-218-989-11	RES-CHIP	1M	5%	1/16W
R1188	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1189	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1194	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1195	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1196	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R1197	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1198	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1199	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1200	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1201	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1202	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1203	1-219-570-11	RES-CHIP	10M	5%	1/16W
R1204	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1205	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1206	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R1207	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1208	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1209	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1210	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1211	1-218-949-11	RES-CHIP	470	5%	1/16W
R1212	1-216-791-11	METAL CHIP	3.3	5%	1/16W
R1213	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1214	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1215	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R1216	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R1217	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R1218	1-218-990-11	SHORT	0		
R1219	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1220	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1221	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1222	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1223	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1224	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1225	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1226	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1227	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1228	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1229	1-218-989-11	RES-CHIP	1M	5%	1/16W
R1230	1-218-979-11	RES-CHIP	150K	5%	1/16W
R1231	1-218-949-11	RES-CHIP	470	5%	1/16W
R1232	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1301	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1302	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1304	1-218-941-11	RES-CHIP	100	5%	1/16W
R1305	1-218-981-11	RES-CHIP	220K	5%	1/16W
R1312	1-218-935-11	RES-CHIP	33	5%	1/16W
R1313	1-218-935-11	RES-CHIP	33	5%	1/16W
R1314	1-218-935-11	RES-CHIP	33	5%	1/16W
R1315	1-218-935-11	RES-CHIP	33	5%	1/16W
R1316	1-218-935-11	RES-CHIP	33	5%	1/16W
R1317	1-218-935-11	RES-CHIP	33	5%	1/16W
R1318	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R1319	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1322	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1325	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1326	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1327	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1328	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1329	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1330	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1402	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1403	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1404	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1405	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1406	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R1407	1-218-946-11	RES-CHIP	270	5%	1/16W
R1408	1-218-990-11	SHORT	0		

Ref. No.	Part No.	Description			Remarks
R1409	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1410	1-218-944-11	RES-CHIP	180	5%	1/16W
R1411	1-218-932-11	RES-CHIP	18	5%	1/16W
R1412	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1413	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1414	1-218-990-11	SHORT	0		
R1415	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1416	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1417	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1418	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1419	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1420	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1421	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1422	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1423	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1424	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1425	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1426	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1427	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1428	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1429	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1430	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1431	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1432	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1433	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1434	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1435	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1436	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1437	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1438	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1439	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1440	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1441	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1442	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1443	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1444	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1445	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1446	1-218-989-11	METAL CHIP	1M	0.5%	1/16W
R1447	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1448	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1449	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1450	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1451	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1452	1-218-941-11	RES-CHIP	100	5%	1/16W
R1453	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1454	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1455	1-218-949-11	RES-CHIP	470	5%	1/16W
R1456	1-218-938-11	RES-CHIP	56	5%	1/16W
R1458	1-218-941-11	RES-CHIP	100	5%	1/16W
R1460	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1801	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1803	1-208-719-11	METAL CHIP	33K	0.5%	1/16W
R1804	1-218-990-11	SHORT	0		
R1807	1-218-967-11	RES-CHIP	15K	5%	1/16W
R1808	1-218-958-11	RES-CHIP	2.7K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R1809	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1810	1-218-975-11	RES-CHIP	68K	5%	1/16W
R1811	1-218-969-11	RES-CHIP	22K	5%	1/16W
R1814	1-218-975-11	RES-CHIP	68K	5%	1/16W
R1815	1-218-989-11	RES-CHIP	1M	5%	1/16W
R1816	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1818	1-218-976-11	RES-CHIP	82K	5%	1/16W
R1819	1-218-990-11	SHORT	0		
R1821	1-218-941-11	RES-CHIP	100	5%	1/16W
R1822	1-218-941-11	RES-CHIP	100	5%	1/16W
R1823	1-218-941-11	RES-CHIP	100	5%	1/16W
R1824	1-218-970-11	RES-CHIP	27K	5%	1/16W
R1825	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1826	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1830	1-218-990-11	SHORT	0		
R1831	1-218-990-11	SHORT	0		
R1832	1-218-941-11	RES-CHIP	100	5%	1/16W
R1833	1-218-941-11	RES-CHIP	100	5%	1/16W
R1901	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1902	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1903	1-218-968-11	RES-CHIP	18K	5%	1/16W
R1904	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1905	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1906	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1907	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1908	1-218-967-11	RES-CHIP	15K	5%	1/16W
R1909	1-218-989-11	RES-CHIP	1M	5%	1/16W
R1911	1-218-879-11	METAL CHIP	22K	0.5%	1/16W
R1912	1-218-947-11	RES-CHIP	330	5%	1/16W
R1913	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1916	1-218-949-11	RES-CHIP	470	5%	1/16W
R1917	1-218-979-11	RES-CHIP	150K	5%	1/16W
R1918	1-218-979-11	RES-CHIP	150K	5%	1/16W
R1919	1-218-950-11	RES-CHIP	560	5%	1/16W
R1920	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R1921	1-218-949-11	RES-CHIP	470	5%	1/16W
R1922	1-218-971-11	RES-CHIP	33K	5%	1/16W
R1923	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R1924	1-218-947-11	RES-CHIP	330	5%	1/16W
R1925	1-218-949-11	RES-CHIP	470	5%	1/16W
R1926	1-218-935-11	RES-CHIP	33	5%	1/16W
		< VARISTOR >			
VDR001	1-801-862-11	VARISTOR, CHIP			
		< VIBRATOR >			
X301	1-781-045-21	VIBRATOR, CRYSTAL (24.576MHz)			
X501	1-781-044-21	VIBRATOR, CRYSTAL (20MHz)			
X801	1-767-980-21	VIBRATOR, CERAMIC (20MHz)			
X1101	1-767-980-21	VIBRATOR, CERAMIC (20MHz)			
X1102	1-760-458-21	VIBRATOR, CRYSTAL (32.768KHz)			
X1401	1-781-770-21	VIBRATOR, LITHIUM NIOBATE (7.375MHz)			
X1402	1-781-044-21	VIBRATOR, CRYSTAL (20MHz)			

Ref. No.	Part No.	Description			Remarks
	A-7094-995-A	VC-241 (M) BOARD, COMPLETE (SERVICE)			
					(TRV11/TRV11E:AUS,E,HK,JE,CN)
		**************************************			
	A-7094-996-A	VC-241(L) BOARD, COMPLETE (SERVICE)			
					(TRV6/TRV6E:AUS,E,HK,JE,CN)
		**************************************			
	A-7094-997-A	VC-241 (L-CE) BOARD, COMPLETE (SERVICE)			
					(TRV6E:AEP,UK)
		**************************************			
	A-7094-963-A	VC-241(M-CE) BOARD, COMPLETE (SERVICE)			
					(TRV11E:AEP,UK)
		**************************************			
					(Ref.No.;10000Series)
		< CAPACITOR >			
C102	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C103	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C104	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C105	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C106	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C108	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C109	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C110	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C111	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C112	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C113	1-164-866-11	CERAMIC CHIP	47PF	5%	16V
C114	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C115	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C116	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C117	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C118	1-164-866-11	CERAMIC CHIP	47PF	5%	16V
C119	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C120	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C121	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C122	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C123	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C124	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C125	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C127	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C128	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C129	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C201	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C202	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
					(TRV11/TRV11E)
C203	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C204	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C205	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C206	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C207	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C208	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C209	1-113-682-11	TANTAL. CHIP	33uF	20%	10V
C210	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C211	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C212	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C213	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C214	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C216	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C217	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C218	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C219	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C240	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C241	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
C242	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
					(TRV6/TRV6E)
C301	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C302	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C303	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C304	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C305	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C306	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C307	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C308	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C309	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C310	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C311	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C312	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C313	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C314	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C315	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C316	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C317	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C318	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C319	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C320	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C321	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C322	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C323	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C324	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C325	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C326	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C327	1-131-862-91	TANTAL. CHIP	47uF	20%	4V
C328	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C329	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C331	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C332	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C333	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C334	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C335	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C337	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C338	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C341	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C342	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C343	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C345	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C346	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C348	1-127-760-91	CERAMIC CHIP	4.7uF	10%	6.3V
C352	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C353	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C401	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C402	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C403	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C404	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V

Ref. No.	Part No.	Description			Remarks
C405	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C406	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C407	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C408	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C409	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C410	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C411	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C414	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C415	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C416	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C418	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C419	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C420	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C421	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C422	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C423	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C424	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C425	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C426	1-127-578-91	TANTAL. CHIP	3.3uF	20%	6.3V
C427	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C428	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C429	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C430	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C431	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C432	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C433	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C434	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C435	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C436	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C437	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C438	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C501	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C502	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C503	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C504	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C505	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C506	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C507	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C508	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C509	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C702	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C703	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C704	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C705	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C710	1-113-988-11	TANTAL. CHIP	68uF	20%	4V
C711	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C712	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C713	1-164-846-11	CERAMIC CHIP	6PF	0.50PF	16V
C714	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C715	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C717	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C718	1-125-839-91	TANTAL. CHIP	47uF	20%	6.3V
C719	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C720	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C721	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			Remarks
C722	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C723	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C724	1-164-870-11	CERAMIC CHIP	68PF	5%	16V
C725	1-164-870-11	CERAMIC CHIP	68PF	5%	16V
C727	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C728	1-113-994-11	TANTAL. CHIP	6.8uF	20%	16V
C729	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C730	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C732	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C751	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C752	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C754	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C755	1-127-895-91	TANTAL. CHIP	22uF	20%	4V
C756	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C757	1-127-895-91	TANTAL. CHIP	22uF	20%	4V
C758	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
					(TRV11/TRV11E)
C759	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
					(TRV11/TRV11E)
C760	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C761	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C762	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C763	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C764	1-127-895-91	TANTAL. CHIP	22uF	20%	4V
C765	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C766	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C767	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C768	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C769	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C801	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C802	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C803	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C805	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C806	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C807	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C808	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C809	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C901	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)				
C903	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)				
C904	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)				
C908	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)				
C910	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)				
C911	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)				
C912	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)				
C913	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)				
C914	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)				
C915	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)				

Ref. No.	Part No.	Description			Remarks
C916	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C917	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C918	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C919	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C920	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C921	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C922	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C926	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C928	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C929	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C930	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C931	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C932	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C933	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C934	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C935	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C936	1-164-866-11	CERAMIC CHIP	47PF	5%	16V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C1001	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1002	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1003	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1004	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1005	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C1006	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C1007	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1008	1-113-600-11	TANTAL. CHIP	2.2uF	20%	6.3V
C1009	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1010	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1011	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1012	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1013	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1014	1-131-623-91	TANTAL. CHIP	15uF	20%	4V
C1015	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1016	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1017	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1018	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1019	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1020	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1021	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1022	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1023	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1024	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1025	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1026	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C1027	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1028	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1029	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1031	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1033	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C1036	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1038	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C1054	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1101	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1102	1-115-156-11	CERAMIC CHIP	1uF		10V
C1103	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C1104	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1105	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1106	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1107	1-119-749-11	TANTAL. CHIP	33uF	20%	4V
C1108	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1109	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1110	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1111	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1112	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1113	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1114	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1115	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1116	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1117	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1118	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1119	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1120	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C1127	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C1128	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
C1129	1-164-854-11	CERAMIC CHIP	15PF	5%	16V
C1130	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1131	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1132	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1301	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C1304	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1305	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C1306	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1307	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C1308	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C1309	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C1310	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1311	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C1312	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1313	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1314	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C1315	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1316	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1318	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C1319	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C1320	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)			
C1321	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V

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Ref. No.	Part No.	Description			Remarks
C1322	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1328	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1329	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1330	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C1331	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C1332	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1337	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1338	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1339	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C1340	1-127-569-91	TANTAL. CHIP	100uF	20%	4V
C1341	1-164-858-11	CERAMIC CHIP	22PF	5%	16V (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
C1401	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1402	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1403	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1408	1-164-848-11	CERAMIC CHIP	8PF	0.50PF	16V (TRV11/TRV11E)
C1409	1-164-849-11	CERAMIC CHIP	9PF	0.50PF	16V (TRV11/TRV11E)
C1412	1-164-315-11	CERAMIC CHIP	470PF	2.00%	50V (TRV11/TRV11E)
C1414	1-164-315-11	CERAMIC CHIP	470PF	2.00%	50V (TRV11/TRV11E)
C1415	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1416	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1417	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1418	1-164-874-11	CERAMIC CHIP	100PF	5%	16V (TRV11/TRV11E)
C1419	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V (TRV11/TRV11E)
C1420	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1421	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1422	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V (TRV11/TRV11E)
C1423	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V (TRV11/TRV11E)
C1424	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1425	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1426	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1427	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1428	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V (TRV11/TRV11E)
C1429	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V (TRV11/TRV11E)
C1430	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1431	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V (TRV11/TRV11E)
C1433	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1434	1-107-682-11	CERAMIC CHIP	1uF	10%	16V (TRV11/TRV11E)
C1435	1-107-682-11	CERAMIC CHIP	1uF	10%	16V (TRV11/TRV11E)
C1436	1-107-682-11	CERAMIC CHIP	1uF	10%	16V (TRV11/TRV11E)
C1437	1-107-682-11	CERAMIC CHIP	1uF	10%	16V (TRV11/TRV11E)
C1438	1-107-682-11	CERAMIC CHIP	1uF	10%	16V (TRV11/TRV11E)
C1440	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V (TRV11/TRV11E)
C1441	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1442	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1443	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1444	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1445	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1446	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1447	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1448	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1449	1-127-895-91	TANTAL. CHIP	22uF	20%	4V (TRV11/TRV11E)
C1452	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1453	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1454	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1455	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V (TRV11/TRV11E)
C1801	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1802	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1805	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1806	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1807	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1808	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1810	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C1811	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1812	1-107-687-11	TANTAL. CHIP	3.3uF	20%	20V
C1813	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C1814	1-107-826-91	CERAMIC CHIP	0.1uF	10%	16V
C1815	1-164-872-11	CERAMIC CHIP	82PF	5%	16V
C1816	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1817	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1818	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1819	1-125-838-91	CERAMIC CHIP	2.2uF	10%	6.3V
C1820	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1822	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C1823	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C1824	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

Ref. No.	Part No.	Description	Remarks
C1901	1-125-837-91	CERAMIC CHIP 1uF 10%	6.3V
C1904	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C1905	1-117-863-11	CERAMIC CHIP 0.47uF 10%	6.3V
C1906	1-117-863-11	CERAMIC CHIP 0.47uF 10%	6.3V
C1907	1-117-919-11	TANTAL. CHIP 10uF 20%	6.3V
C1908	1-125-837-91	CERAMIC CHIP 1uF 10%	6.3V
C1909	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C1910	1-125-926-91	TANTAL. CHIP 4.7uF 20%	6.3V
C1911	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C1912	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C1913	1-164-668-11	CERAMIC CHIP 510PF 5%	50V
C1914	1-117-919-11	TANTAL. CHIP 10uF 20%	6.3V
C1915	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C1916	1-125-837-91	CERAMIC CHIP 1uF 10%	6.3V
C1917	1-107-826-91	CERAMIC CHIP 0.1uF 10%	16V
C1918	1-164-848-11	CERAMIC CHIP 8PF 0.50PF	16V
C1919	1-117-863-11	CERAMIC CHIP 0.47uF 10%	6.3V
C1920	1-117-863-11	CERAMIC CHIP 0.47uF 10%	6.3V
C1921	1-164-862-11	CERAMIC CHIP 33PF 5%	16V
C1922	1-125-837-91	CERAMIC CHIP 1uF 10%	6.3V
C1923	1-164-864-11	CERAMIC CHIP 39PF 5%	16V
C1924	1-125-837-91	CERAMIC CHIP 1uF 10%	6.3V
C1925	1-107-826-91	CERAMIC CHIP 0.1uF 10%	16V
C1926	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C1927	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C1928	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C1929	1-127-895-91	TANTAL. CHIP 22uF 20%	4V
C1930	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C1931	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C1932	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
		< CONNECTOR >	
CN001	1-784-938-21	CONNECTOR, BOARD TO BOARD 60P	
CN002	1-779-521-11	CONNECTOR, BOARD TO BOARD 80P	
CN003	1-784-424-21	CONNECTOR, FFC/FPC (ZIF) 51P	
CN005	1-766-340-21	CONNECTOR, FFC/FPC 10P	
CN006	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 27P	
CN007	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 27P	
CN008	1-784-423-21	CONNECTOR, FFC/FPC (ZIF) 39P	
CN009	1-750-303-41	CONNECTOR, BOARD TO BOARD 20P	
CN101	1-691-374-11	CONNECTOR, FFC/FPC 10P	
CN701	1-784-994-21	CONNECTOR, BOARD TO BOARD 50P	
		< DIODE >	
D001	8-719-077-51	DIODE MAZR08200AS0	
D002	8-719-077-57	DIODE DF3A8.2C(TPL3)	
D003	8-719-077-57	DIODE DF3A8.2C(TPL3)	
D004	8-719-077-57	DIODE DF3A8.2C(TPL3)	
D005	8-719-077-57	DIODE DF3A8.2C(TPL3)	
D006	8-719-077-57	DIODE DF3A8.2C(TPL3)	
D201	8-719-075-62	DIODE 1SS401(TE85L)	(TRV11/TRV11E)
D203	8-719-077-51	DIODE MA4L11100AS0	(TRV11/TRV11E)
D301	8-719-992-02	DIODE RB705D-T146	
D302	8-719-055-86	DIODE KV1470TL1-3	
D303	8-719-992-02	DIODE RB705D-T146	
D304	8-719-055-86	DIODE KV1470TL1-3	
D701	8-713-103-84	DIODE 1T379-01-T8A	
D1102	8-719-077-51	DIODE MA4L11100AS0	
D1103	8-719-077-51	DIODE MA4L11100AS0	

Ref. No.	Part No.	Description	Remarks
D1104	8-719-077-48	DIODE MA4L72800AS0	
D1105	8-719-077-51	DIODE MA4L11100AS0	
D1106	8-719-077-51	DIODE MA4L11100AS0	
D1108	8-719-077-51	DIODE MA4L11100AS0	(TRV11/TRV11E)
D1109	8-719-077-51	DIODE MAZR08200AS0	(TRV11/TRV11E)
D1110	8-719-077-48	DIODE MA4L72800AS0	(TRV11/TRV11E)
D1111	8-719-077-48	DIODE MA4L72800AS0	(TRV11/TRV11E)
D1401	8-719-077-51	DIODE MA4L11100AS0	(TRV11/TRV11E)
D1802	8-713-102-80	DIODE 1T369-01-T8A	
D1805	8-719-078-14	DIODE MA4L78400AS0	
D1806	8-719-078-14	DIODE MA4L78400AS0	
		< FERRITE BEAD >	
FB001	1-500-444-11	FERRITE 0UH	
FB002	1-500-444-11	FERRITE 0UH	
FB003	1-500-444-11	FERRITE 0UH	
FB004	1-500-444-11	FERRITE 0UH	
FB101	1-469-676-22	FERRITE 0UH	
FB201	1-414-813-11	FERRITE 0UH	
FB301	1-469-676-22	FERRITE 0UH	
FB302	1-469-676-22	FERRITE 0UH	
FB303	1-469-676-22	FERRITE 0UH	
FB304	1-469-676-22	FERRITE 0UH	
FB305	1-469-676-22	FERRITE 0UH	
FB306	1-469-676-22	FERRITE 0UH	
FB307	1-469-676-22	FERRITE 0UH	
FB501	1-469-676-22	FERRITE 0UH	
FB702	1-469-676-22	FERRITE 0UH	
FB703	1-414-444-11	FERRITE 0UH	
FB704	1-414-813-11	FERRITE 0UH	
FB705	1-500-283-11	INDUCTOR CHIP 0UH	
* FB706	1-500-282-11	INDUCTOR CHIP 0UH	
* FB707	1-500-282-11	INDUCTOR CHIP 0UH	
FB753	1-414-813-11	FERRITE 0UH	(TRV11/TRV11E)
FB751	1-414-813-11	FERRITE 0UH	
FB752	1-414-813-11	FERRITE 0UH	
FB901	1-469-676-22	FERRITE 0UH	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
FB1002	1-469-676-22	FERRITE 0UH	
FB1101	1-469-676-22	FERRITE 0UH	
FB1301	1-469-676-22	FERRITE 0UH	
FB1401	1-414-813-11	FERRITE 0UH	(TRV11/TRV11E)
FB1402	1-414-813-11	FERRITE 0UH	(TRV11/TRV11E)
FB1406	1-500-282-11	INDUCTOR CHIP 0UH	(TRV11/TRV11E)
FB1407	1-414-813-11	FERRITE 0UH	(TRV11/TRV11E)
FB1408	1-414-813-11	FERRITE 0UH	(TRV11/TRV11E)
FB1409	1-500-445-21	FERRITE 0UH	(TRV11/TRV11E)
FB1801	1-469-676-22	FERRITE 0UH	
FB1802	1-216-864-11	METAL CHIP 0 5%	1/16W
FB1803	1-216-864-11	METAL CHIP 0 5%	1/16W
		< IC >	
IC101	8-752-086-52	IC CXA2071R-T4	
IC102	8-752-086-53	IC CXA2072R-T4	
IC201	8-759-637-96	IC uPD16877MA-6A5-E2	(TRV11/TRV11E)
IC202	8-759-444-87	IC NJM324V(TE2)	
IC203	8-759-444-87	IC NJM324V(TE2)	

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Ref. No.	Part No.	Description	Remarks
IC204	8-759-637-96	IC uPD16877MA-6A5-E2	
IC301	8-759-650-63	IC CAIN-CSP	
IC302	8-759-641-50	IC MB90099PFV-G-102-BND-ER	
IC361	8-759-679-38	IC SN104266AGGM-TEB	
IC401	8-759-652-08	IC CXA8099ER-TBM	
IC402	8-759-657-68	IC SC111319FTBEB	
IC501	8-759-670-21	IC MB91192LGA-G-107-ER	
IC502	8-759-593-47	IC AK6417AM-E2	
IC701	8-759-638-66	IC AD80013JSTRL	
IC702	8-752-386-72	IC CXD2444R-T4	
IC703	8-759-387-31	IC TC75S55F(TE85R)	
IC751	8-759-657-95	IC CXD9560GF-TEB	
IC752	8-759-639-27	IC MSM56V16160D-10LSFS1	(TRV11/TRV11E)
IC753	8-759-667-94	IC S-817A15ANB-CUE-T2	
IC801	8-759-566-18	IC AK6480BH-E2	
IC802	8-752-914-47	IC CXP972048-013GA-T6	
IC903	8-759-653-59	IC MB87L1241LGA-G-ER	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
IC1001	8-759-654-30	IC LA74204FN-TBM	
IC1002	8-759-647-71	IC AK4550VT-E2	
IC1101	8-759-653-63	IC S-817A36ANB-CUZ-T2	
IC1102	8-759-424-79	IC S-8423YFS-T2	
IC1103	8-759-642-45	IC TL1596CPWR	
IC1104	8-752-914-72	IC CXP921064A-008GA-T6	
IC1301	8-759-599-37	IC AN2225FHQ-EB	
IC1402	8-759-234-20	IC TC7S08F(TE85R)	(TRV11/TRV11E)
IC1403	8-759-495-15	IC uPD4721GS-GJG-E2	(TRV11/TRV11E)
IC1404	8-759-669-63	IC HD6417197BT77	(TRV11/TRV11E)
IC1405	8-759-668-17	IC MB81F161622C-15PB-ER	(TRV11/TRV11E)
IC1406	8-759-668-54	IC MB87J1802LGA-G-ER	(TRV11/TRV11E)
IC1407	8-759-680-82	IC MBM29LV400BC-90PBT-01	(TRV11/TRV11E)
IC1802	8-759-660-93	IC RB5P004AM1	
IC1803	8-752-400-96	IC CXD3501R-T4	(TRV6/TRV6E/TRV11/TRV11E:AUS,E,HK,JE,CN)
IC1901	8-759-566-96	IC AN2920FHQ-EB	
		< COIL >	
L001	1-414-770-91	INDUCTOR CHIP 4.7uH	
L101	1-469-525-91	INDUCTOR 10uH	
L102	1-469-525-91	INDUCTOR 10uH	
L103	1-469-525-91	INDUCTOR 10uH	
L201	1-469-525-91	INDUCTOR 10uH	
L203	1-414-771-91	INDUCTOR CHIP 10uH	
L303	1-412-936-11	INDUCTOR 0.56uH	
L304	1-414-246-11	INDUCTOR 1.8uH	
L305	1-414-771-91	INDUCTOR CHIP 10uH	
L306	1-414-771-91	INDUCTOR CHIP 10uH	
L307	1-469-525-91	INDUCTOR 10uH	
L401	1-414-771-91	INDUCTOR CHIP 10uH	
L402	1-414-771-91	INDUCTOR CHIP 10uH	
L701	1-469-525-91	INDUCTOR 10uH	
L752	1-469-525-91	INDUCTOR 10uH	
L801	1-469-525-91	INDUCTOR 10uH	
L901	1-414-771-91	INDUCTOR CHIP 10uH	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
L902	1-414-771-91	INDUCTOR CHIP 10uH	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
L1001	1-414-771-91	INDUCTOR CHIP 10uH	
L1003	1-469-058-11	INDUCTOR CHIP 22uH	
L1301	1-469-525-91	INDUCTOR 10uH	
L1302	1-414-771-91	INDUCTOR CHIP 10uH	
L1303	1-412-939-11	INDUCTOR 1uH	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
L1304	1-414-771-91	INDUCTOR CHIP 10uH	
L1406	1-469-525-91	INDUCTOR 10uH	(TRV11/TRV11E)
L1407	1-414-753-91	INDUCTOR 4.7uH	(TRV11/TRV11E)
L1409	1-469-525-91	INDUCTOR 10uH	(TRV11/TRV11E)
L1410	1-469-525-91	INDUCTOR 10uH	(TRV11/TRV11E)
L1411	1-469-528-91	INDUCTOR 100uH	(TRV11/TRV11E)
L1801	1-414-771-91	INDUCTOR CHIP 10uH	
L1802	1-412-950-11	INDUCTOR 8.2uH	
L1803	1-414-771-91	INDUCTOR CHIP 10uH	
L1901	1-412-948-11	INDUCTOR 5.6uH	
L1902	1-469-098-91	INDUCTOR 33uH	
L1903	1-469-098-91	INDUCTOR 33uH	
L1904	1-469-525-91	INDUCTOR 10uH	
		< TRANSISTOR >	
Q001	8-729-050-89	TRANSISTOR UNRL21100AS0	
Q002	8-729-028-27	TRANSISTOR 2SK2009(TE85L)	
Q003	8-729-050-89	TRANSISTOR UNRL21100AS0	
Q004	8-729-050-89	TRANSISTOR UNRL21100AS0	
Q102	8-729-050-74	TRANSISTOR EC3101C-PM-TL	
Q201	8-729-050-76	TRANSISTOR EC3201C-PM-TL	
Q202	8-729-050-76	TRANSISTOR EC3201C-PM-TL	
Q203	8-729-050-74	TRANSISTOR 2SB1462L0AS0	
Q204	8-729-050-74	TRANSISTOR EC3101C-PM-TL	
Q302	8-729-050-74	TRANSISTOR EC3101C-PM-TL	
Q304	8-729-050-74	TRANSISTOR EC3101C-PM-TL	
Q306	8-729-050-74	TRANSISTOR EC3101C-PM-TL	
Q401	8-729-050-76	TRANSISTOR EC3201C-PM-TL	
Q402	8-729-049-91	TRANSISTOR 2SA2018H-T2L	
Q802	8-729-050-79	TRANSISTOR UNRL11100AS0	
Q802	8-729-050-79	TRANSISTOR RN2102C(TPL3)	
Q902	8-729-050-74	TRANSISTOR EC3101C-PM-TL	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
Q903	8-729-050-76	TRANSISTOR EC3201C-PM-TL	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
Q904	8-729-049-91	TRANSISTOR 2SA2018H-T2L	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
Q905	8-729-050-91	TRANSISTOR UNRL21300AS0	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
Q906	8-729-050-74	TRANSISTOR EC3101C-PM-TL	(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
Q1001	8-729-050-98	TRANSISTOR UNRL21000AS0	
Q1002	8-729-050-76	TRANSISTOR EC3201C-PM-TL	
Q1003	8-729-050-98	TRANSISTOR UNRL21000AS0	
Q1004	8-729-050-83	TRANSISTOR UNRL11500AS0	
Q1005	8-729-050-76	TRANSISTOR EC3201C-PM-TL	
Q1006	8-729-050-76	TRANSISTOR EC3201C-PM-TL	
Q1007	8-729-050-83	TRANSISTOR UNRL11500AS0	
Q1008	8-729-050-91	TRANSISTOR UNRL21300AS0	
Q1009	8-729-050-76	TRANSISTOR EC3201C-PM-TL	
Q1010	8-729-050-83	TRANSISTOR UNRL11500AS0	
Q1011	8-729-024-39	TRANSISTOR 2SD1511-R/S(TX)	
Q1101	8-729-050-76	TRANSISTOR EC3201C-PM-TL	
Q1102	8-729-050-76	TRANSISTOR EC3201C-PM-TL	
Q1103	8-729-050-91	TRANSISTOR UNRL21300AS0	

Ref. No.	Part No.	Description				Remarks
Q1104	8-729-041-43	TRANSISTOR	HN1L02FU(TE85R)			
Q1105	8-729-050-91	TRANSISTOR	UNRL21300AS0			
Q1106	8-729-050-79	TRANSISTOR	UNRL11100AS0			
Q1107	8-729-050-74	TRANSISTOR	EC3101C-PM-TL			
Q1108	8-729-050-81	TRANSISTOR	UNRL11300AS0			
Q1109	8-729-049-91	TRANSISTOR	2SA2018H-T2L			
Q1110	8-729-050-89	TRANSISTOR	RN1104C(TPL3)			(TRV11/TRV11E)
Q1111	8-729-050-81	TRANSISTOR	UNRL11300AS0			(TRV11/TRV11E)
Q1112	8-729-050-74	TRANSISTOR	EC3101C-PM-TL			
Q1113	8-729-050-76	TRANSISTOR	EC3201C-PM-TL			
Q1114	8-729-050-74	TRANSISTOR	EC3101C-PM-TL			(TRV11/TRV11E)
Q1115	8-729-050-98	TRANSISTOR	UNRL21000AS0			(TRV11/TRV11E)
Q1116	8-729-050-88	TRANSISTOR	UNRL11000AS0			(TRV11/TRV11E)
Q1301	8-729-050-76	TRANSISTOR	EC3201C-PM-TL			(TRV6/TRV6E:AUS,AUS,E,HK,JE,CN/TRV11/ TRV11E:AUS,AUS,E,HK,JE,CN)
Q1401	8-729-050-91	TRANSISTOR	UNRL21300AS0			(TRV11/TRV11E)
Q1402	8-729-050-81	TRANSISTOR	UNRL11300AS0			(TRV11/TRV11E)
Q1403	8-729-050-91	TRANSISTOR	UNRL21300AS0			(TRV11/TRV11E)
Q1405	8-729-050-91	TRANSISTOR	UNRL21300AS0			(TRV11/TRV11E)
Q1406	8-729-050-89	TRANSISTOR	UNRL21100AS0			(TRV11/TRV11E)
Q1407	8-729-050-74	TRANSISTOR	EC3101C-PM-TL			(TRV11/TRV11E)
Q1901	8-729-050-74	TRANSISTOR	EC3101C-PM-TL			
Q1902	8-729-122-63	TRANSISTOR	2SA1226-T1E3E4			
		< RESISTOR >				
R001	1-218-935-11	RES-CHIP	33	5%	1/16W	
R002	1-218-935-11	RES-CHIP	33	5%	1/16W	
R003	1-218-990-11	SHORT	0			(TRV6E:AEP,UK/TRV11E:AEP,UK)
R005	1-218-950-11	RES-CHIP	560	5%	1/16W	
R006	1-218-950-11	RES-CHIP	560	5%	1/16W	
R007	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R009	1-218-990-11	SHORT	0			(TRV6E:AEP,UK/TRV11E:AEP,UK)
R010	1-218-977-11	RES-CHIP	100K	5%	1/16W	
R103	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R104	1-218-963-11	RES-CHIP	6.8K	5%	1/16W	
R105	1-218-990-11	SHORT	0			
R106	1-218-989-11	RES-CHIP	1M	5%	1/16W	
R107	1-218-979-11	RES-CHIP	150K	5%	1/16W	
R108	1-218-966-11	RES-CHIP	12K	5%	1/16W	
R109	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R110	1-218-949-11	RES-CHIP	470	5%	1/16W	
R112	1-218-966-11	RES-CHIP	12K	5%	1/16W	
R113	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R114	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R115	1-218-969-11	RES-CHIP	22K	5%	1/16W	

Ref. No.	Part No.	Description				Remarks
R116	1-208-910-11	METAL CHIP	9.1K	0.5%	1/16W	
R117	1-208-910-11	METAL CHIP	9.1K	0.5%	1/16W	
R118	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R120	1-218-945-11	METAL CHIP	220	0.5%	1/16W	
R122	1-218-945-11	METAL CHIP	220	0.5%	1/16W	
R123	1-218-945-11	METAL CHIP	220	0.5%	1/16W	
R124	1-218-945-11	METAL CHIP	220	0.5%	1/16W	
R125	1-216-864-11	METAL CHIP	0	5%	1/16W	
R126	1-216-864-11	METAL CHIP	0	5%	1/16W	
R127	1-218-939-11	RES-CHIP	68	5%	1/16W	
R204	1-216-001-00	METAL CHIP	10	5%	1/10W	
R206	1-218-953-11	RES-CHIP	1K	5%	1/16W	
R209	1-218-977-11	RES-CHIP	100K	5%	1/16W	
R210	1-218-977-11	RES-CHIP	100K	5%	1/16W	
R211	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R212	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R213	1-218-990-11	SHORT	0			
R215	1-218-973-11	RES-CHIP	47K	5%	1/16W	
R216	1-218-990-11	SHORT	0			
R218	1-218-990-11	SHORT	0			
R219	1-218-990-11	SHORT	0			
R220	1-218-990-11	SHORT	0			
R222	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R223	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R224	1-218-947-11	RES-CHIP	330	5%	1/16W	
R225	1-218-977-11	RES-CHIP	100K	5%	1/16W	
R226	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R227	1-218-977-11	RES-CHIP	100K	5%	1/16W	
R228	1-218-969-11	RES-CHIP	22K	5%	1/16W	
R230	1-218-954-11	RES-CHIP	1.2K	5%	1/16W	
R231	1-218-966-11	RES-CHIP	12K	5%	1/16W	
R232	1-218-958-11	RES-CHIP	2.7K	5%	1/16W	
R233	1-218-980-11	RES-CHIP	180K	5%	1/16W	
R234	1-218-980-11	RES-CHIP	180K	5%	1/16W	
R235	1-218-965-11	RES-CHIP	10K	5%	1/16W	
R236	1-218-980-11	RES-CHIP	180K	5%	1/16W	
R237	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R238	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	
R239	1-218-975-11	RES-CHIP	68K	5%	1/16W	
R240	1-218-975-11	RES-CHIP	68K	5%	1/16W	
R241	1-216-864-11	METAL CHIP	0	5%	1/16W	(TRV6/TRV6E)
R242	1-216-864-11	METAL CHIP	0	5%	1/16W	(TRV6/TRV6E)
R251	1-218-990-11	SHORT	0			(TRV6/TRV6E)
R252	1-218-990-11	SHORT	0			(TRV6/TRV6E)
R253	1-218-990-11	SHORT	0			(TRV6/TRV6E)
R254	1-218-990-11	SHORT	0			(TRV6/TRV6E)
R255	1-218-990-11	SHORT	0			(TRV6/TRV6E)
R256	1-218-990-11	SHORT	0			(TRV6/TRV6E)
R257	1-218-990-11	SHORT	0			(TRV6/TRV6E)
R258	1-218-990-11	SHORT	0			(TRV6/TRV6E)
R259	1-218-990-11	SHORT	0			(TRV6/TRV6E)
R260	1-218-990-11	SHORT	0			(TRV6/TRV6E)
R261	1-218-990-11	SHORT	0			(TRV6/TRV6E)
R262	1-218-990-11	SHORT	0			(TRV6/TRV6E)
R263	1-218-990-11	SHORT	0			(TRV6/TRV6E)

Ref. No.	Part No.	Description			Remarks
R264	1-218-990-11	SHORT	0	(TRV6/TRV6E)	
R265	1-218-990-11	SHORT	0	(TRV6/TRV6E)	
R266	1-218-990-11	SHORT	0	(TRV6/TRV6E)	
R267	1-218-990-11	SHORT	0	(TRV6/TRV6E)	
R268	1-218-990-11	SHORT	0	(TRV6/TRV6E)	
R269	1-218-990-11	SHORT	0	(TRV6/TRV6E)	
R270	1-218-990-11	SHORT	0	(TRV6/TRV6E)	
R271	1-218-990-11	SHORT	0	(TRV6/TRV6E)	
R272	1-218-990-11	SHORT	0	(TRV6/TRV6E)	
R305	1-218-990-11	SHORT	0		
R306	1-218-990-11	SHORT	0		
R310	1-218-965-11	RES-CHIP	10K	5%	1/16W
R311	1-218-965-11	RES-CHIP	10K	5%	1/16W
R312	1-218-946-11	RES-CHIP	270	5%	1/16W
R313	1-218-990-11	SHORT	0		
R314	1-218-990-11	SHORT	0		
R315	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R316	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R317	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R318	1-218-965-11	RES-CHIP	10K	5%	1/16W
R319	1-218-965-11	RES-CHIP	10K	5%	1/16W
R320	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R321	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R322	1-218-941-11	RES-CHIP	100	5%	1/16W
R323	1-218-947-11	RES-CHIP	330	5%	1/16W
R324	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R325	1-218-937-11	RES-CHIP	47	5%	1/16W
R326	1-218-990-11	SHORT	0		
R327	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R328	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R331	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R332	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R334	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R336	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R338	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R340	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R343	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R351	1-218-946-11	RES-CHIP	270	5%	1/16W
R358	1-218-943-11	RES-CHIP	150	5%	1/16W
R361	1-208-709-11	METAL CHIP	12K	0.5%	1/16W
R364	1-208-709-11	METAL CHIP	12K	0.5%	1/16W
R367	1-218-938-11	METAL CHIP	56	0.5%	1/16W
R368	1-218-938-11	METAL CHIP	56	0.5%	1/16W
R369	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R370	1-218-938-11	METAL CHIP	56	0.5%	1/16W
R371	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R372	1-218-938-11	METAL CHIP	56	0.5%	1/16W
R374	1-218-965-11	RES-CHIP	10K	5%	1/16W
R375	1-218-965-11	RES-CHIP	10K	5%	1/16W
R376	1-218-953-11	RES-CHIP	1K	5%	1/16W
R377	1-218-941-11	RES-CHIP	100	5%	1/16W
R378	1-218-941-11	RES-CHIP	100	5%	1/16W
R379	1-218-941-11	RES-CHIP	100	5%	1/16W
R380	1-218-941-11	RES-CHIP	100	5%	1/16W
R381	1-218-941-11	RES-CHIP	100	5%	1/16W
R382	1-218-990-11	SHORT	0		
R383	1-218-990-11	SHORT	0		
R387	1-218-990-11	SHORT	0		
R388	1-218-990-11	SHORT	0		
R389	1-218-990-11	SHORT	0		
R390	1-218-990-11	SHORT	0		
R391	1-218-990-11	SHORT	0		
R401	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R402	1-218-965-11	RES-CHIP	10K	5%	1/16W
R403	1-218-965-11	RES-CHIP	10K	5%	1/16W
R404	1-218-975-11	RES-CHIP	68K	5%	1/16W
R405	1-218-967-11	RES-CHIP	15K	5%	1/16W
R406	1-217-671-11	METAL CHIP	1	5%	1/10W
R407	1-217-671-11	METAL CHIP	1	5%	1/10W
R408	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R409	1-218-977-11	RES-CHIP	100K	5%	1/16W
R410	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R411	1-218-968-11	RES-CHIP	18K	5%	1/16W
R412	1-218-990-11	SHORT	0		
R416	1-218-965-11	RES-CHIP	10K	5%	1/16W
R417	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R418	1-218-977-11	RES-CHIP	100K	5%	1/16W
R419	1-218-969-11	RES-CHIP	22K	5%	1/16W
R421	1-217-671-11	METAL CHIP	1	5%	1/10W
R422	1-217-671-11	METAL CHIP	1	5%	1/10W
R423	1-217-671-11	METAL CHIP	1	5%	1/10W
R424	1-218-941-11	RES-CHIP	100	5%	1/16W
R426	1-218-977-11	RES-CHIP	100K	5%	1/16W
R427	1-218-977-11	RES-CHIP	100K	5%	1/16W
R428	1-218-977-11	RES-CHIP	100K	5%	1/16W
R429	1-218-989-11	RES-CHIP	1M	5%	1/16W
R430	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R431	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R432	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R433	1-218-972-11	RES-CHIP	39K	5%	1/16W
R434	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R436	1-218-990-11	SHORT	0		
R437	1-208-687-11	METAL CHIP	1.5K	0.5%	1/16W
R501	1-218-977-11	RES-CHIP	100K	5%	1/16W
R502	1-218-977-11	RES-CHIP	100K	5%	1/16W
R503	1-218-977-11	RES-CHIP	100K	5%	1/16W
R504	1-218-977-11	RES-CHIP	100K	5%	1/16W
R505	1-218-985-11	RES-CHIP	470K	5%	1/16W
R507	1-218-953-11	RES-CHIP	1K	5%	1/16W
R508	1-218-985-11	RES-CHIP	470K	5%	1/16W
R509	1-218-985-11	RES-CHIP	470K	5%	1/16W
R510	1-218-985-11	RES-CHIP	470K	5%	1/16W
R512	1-218-985-11	RES-CHIP	470K	5%	1/16W
R513	1-218-953-11	RES-CHIP	1K	5%	1/16W
R514	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R515	1-218-990-11	SHORT	0		
R516	1-218-977-11	RES-CHIP	100K	5%	1/16W
R517	1-208-931-11	METAL CHIP	68K	0.5%	1/16W
R518	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R519	1-218-953-11	RES-CHIP	1K	5%	1/16W
R520	1-218-943-11	RES-CHIP	150	5%	1/16W
R521	1-218-945-11	RES-CHIP	220	5%	1/16W
R522	1-218-943-11	RES-CHIP	150	5%	1/16W
R523	1-218-945-11	RES-CHIP	220	5%	1/16W
R524	1-218-965-11	RES-CHIP	10K	5%	1/16W
R525	1-218-965-11	RES-CHIP	10K	5%	1/16W
R526	1-218-985-11	RES-CHIP	470K	5%	1/16W
R527	1-218-977-11	RES-CHIP	100K	5%	1/16W
R528	1-218-977-11	RES-CHIP	100K	5%	1/16W
R529	1-218-977-11	RES-CHIP	100K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R530	1-218-977-11	RES-CHIP	100K	5%	1/16W
R531	1-218-985-11	RES-CHIP	470K	5%	1/16W
R532	1-218-977-11	RES-CHIP	100K	5%	1/16W
R702	1-218-990-11	SHORT	0		
R712	1-218-985-11	RES-CHIP	470K	5%	1/16W
R713	1-218-945-11	RES-CHIP	220	5%	1/16W
R714	1-218-983-11	RES-CHIP	330K	5%	1/16W
R715	1-218-985-11	RES-CHIP	470K	5%	1/16W
R717	1-216-864-11	METAL CHIP	0	5%	1/16W
R721	1-218-977-11	RES-CHIP	100K	5%	1/16W
R723	1-218-937-11	RES-CHIP	47	5%	1/16W
R724	1-218-990-11	SHORT	0		
R751	1-216-864-11	METAL CHIP	0	5%	1/16W
R752	1-216-864-11	METAL CHIP	0	5%	1/16W
R753	1-208-643-11	RES-CHIP	22	5%	1/16W
R754	1-218-990-11	SHORT	0		(TRV6/TRV6E)
R755	1-218-973-11	RES-CHIP	47K	5%	1/16W (TRV11/TRV11E)
R756	1-218-973-11	RES-CHIP	47K	5%	1/16W (TRV11/TRV11E)
R757	1-218-973-11	RES-CHIP	47K	5%	1/16W (TRV11/TRV11E)
R758	1-218-973-11	RES-CHIP	47K	5%	1/16W (TRV11/TRV11E)
R759	1-218-973-11	RES-CHIP	47K	5%	1/16W (TRV11/TRV11E)
R760	1-218-973-11	RES-CHIP	47K	5%	1/16W (TRV11/TRV11E)
R801	1-218-977-11	RES-CHIP	100K	5%	1/16W
R802	1-218-977-11	RES-CHIP	100K	5%	1/16W
R803	1-218-973-11	RES-CHIP	47K	5%	1/16W
R804	1-218-953-11	RES-CHIP	1K	5%	1/16W
R805	1-218-973-11	RES-CHIP	47K	5%	1/16W
R807	1-218-973-11	RES-CHIP	47K	5%	1/16W
R808	1-218-973-11	RES-CHIP	47K	5%	1/16W
R809	1-218-953-11	RES-CHIP	1K	5%	1/16W
R810	1-218-985-11	RES-CHIP	470K	5%	1/16W
R811	1-218-973-11	RES-CHIP	47K	5%	1/16W
R812	1-218-977-11	RES-CHIP	100K	5%	1/16W
R813	1-218-977-11	RES-CHIP	100K	5%	1/16W
R814	1-218-977-11	RES-CHIP	100K	5%	1/16W
R815	1-218-977-11	RES-CHIP	100K	5%	1/16W
R816	1-218-953-11	RES-CHIP	1K	5%	1/16W
R817	1-218-953-11	RES-CHIP	1K	5%	1/16W
R818	1-218-953-11	RES-CHIP	1K	5%	1/16W
R819	1-218-953-11	RES-CHIP	1K	5%	1/16W
R820	1-218-989-11	RES-CHIP	1M	5%	1/16W
R821	1-218-973-11	RES-CHIP	47K	5%	1/16W
R823	1-218-953-11	RES-CHIP	1K	5%	1/16W
R824	1-218-973-11	RES-CHIP	47K	5%	1/16W
R827	1-218-953-11	RES-CHIP	1K	5%	1/16W
R828	1-218-965-11	RES-CHIP	10K	5%	1/16W (TRV6E:AEP,UK)
R828	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R828	1-218-973-11	RES-CHIP	47K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN)
R829	1-218-989-11	RES-CHIP	1M	5%	1/16W
R830	1-218-973-11	RES-CHIP	47K	5%	1/16W (TRV11E:AEP,UK)

Ref. No.	Part No.	Description			Remarks
R830	1-218-965-11	RES-CHIP	10K	5%	1/16W (TRV11/TRV11E:AUS,E,HK,JE,CN)
R830	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV6/TRV6E/TRV20/TRV20E)
R831	1-218-977-11	RES-CHIP	100K	5%	1/16W
R832	1-218-989-11	RES-CHIP	1M	5%	1/16W
R835	1-218-953-11	RES-CHIP	1K	5%	1/16W
R836	1-218-977-11	RES-CHIP	100K	5%	1/16W
R837	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R838	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R842	1-218-985-11	RES-CHIP	470K	5%	1/16W
R843	1-218-977-11	RES-CHIP	100K	5%	1/16W
R904	1-218-990-11	SHORT	0		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R907	1-218-965-11	RES-CHIP	10K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R908	1-218-965-11	RES-CHIP	10K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R909	1-218-973-11	RES-CHIP	47K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R911	1-218-951-11	RES-CHIP	680	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R912	1-218-965-11	RES-CHIP	10K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R916	1-218-949-11	RES-CHIP	470	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R924	1-218-990-11	SHORT	0		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R929	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R949	1-218-990-11	SHORT	0		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R953	1-218-990-11	SHORT	0		(TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R954	1-218-941-11	RES-CHIP	100	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R955	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R956	1-218-960-11	RES-CHIP	3.9K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R957	1-218-957-11	RES-CHIP	2.2K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R958	1-218-953-11	RES-CHIP	1K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R1001	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1005	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1006	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1007	1-218-937-11	RES-CHIP	47	5%	1/16W
R1008	1-218-937-11	RES-CHIP	47	5%	1/16W
R1009	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1010	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1012	1-218-937-11	RES-CHIP	47	5%	1/16W
R1013	1-218-937-11	RES-CHIP	47	5%	1/16W
R1014	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1015	1-218-960-11	RES-CHIP	3.9K	5%	1/16W
R1016	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1017	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1019	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1020	1-218-971-11	RES-CHIP	33K	5%	1/16W
R1021	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1022	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1023	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1024	1-218-979-11	RES-CHIP	150K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R1025	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1026	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1027	1-218-979-11	RES-CHIP	150K	5%	1/16W
R1029	1-218-949-11	RES-CHIP	470	5%	1/16W
R1030	1-218-949-11	RES-CHIP	470	5%	1/16W
R1031	1-218-990-11	SHORT	0		
R1032	1-218-990-11	SHORT	0		
R1033	1-218-990-11	SHORT	0		
R1034	1-218-990-11	SHORT	0		
R1035	1-218-990-11	SHORT	0		
R1036	1-218-990-11	SHORT	0		
R1037	1-218-990-11	SHORT	0		
R1038	1-218-990-11	SHORT	0		
R1039	1-218-990-11	SHORT	0		
R1103	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1104	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1106	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1109	1-218-934-11	RES-CHIP	27	5%	1/16W
R1110	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1111	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1112	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1113	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1114	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1115	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1117	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1118	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1119	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1120	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1121	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1122	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1123	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1124	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1126	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1127	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1128	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1129	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1130	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1131	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1132	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1133	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1134	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1137	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R1139	1-218-989-11	RES-CHIP	1M	5%	1/16W
R1140	1-218-985-11	METAL CHIP	470K	0.5%	1/16W
R1141	1-218-985-11	METAL CHIP	470K	0.5%	1/16W
R1142	1-218-989-11	METAL CHIP	1M	0.5%	1/16W
R1143	1-218-989-11	METAL CHIP	1M	0.5%	1/16W
R1144	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1145	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1146	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1147	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1148	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1149	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1150	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1151	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1152	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1153	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1154	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1155	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1156	1-218-953-11	RES-CHIP	1K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R1157	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1161	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1162	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1163	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1165	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1166	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1167	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1176	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1178	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1179	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1180	1-218-989-11	RES-CHIP	1M	5%	1/16W
R1188	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1189	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1194	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1195	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1196	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R1197	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1198	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1199	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1200	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1201	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1202	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1203	1-219-570-11	RES-CHIP	10M	5%	1/16W
R1204	1-218-965-11	RES-CHIP	10K	5%	1/16W (TRV11/TRV11E)
R1205	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1206	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R1207	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1208	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1209	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1210	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1211	1-218-949-11	RES-CHIP	470	5%	1/16W
R1212	1-216-791-11	METAL CHIP	3.3	5%	1/16W
R1213	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1214	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1215	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R1216	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R1217	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R1218	1-218-990-11	SHORT	0		
R1219	1-218-973-11	RES-CHIP	47K	5%	1/16W (TRV11/TRV11E)
R1220	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1221	1-218-953-11	RES-CHIP	1K	5%	1/16W (TRV11/TRV11E)
R1222	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1223	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1224	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1225	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1226	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1227	1-218-985-11	RES-CHIP	470K	5%	1/16W (TRV11/TRV11E)
R1228	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV11/TRV11E)
R1229	1-218-989-11	RES-CHIP	1M	5%	1/16W
R1230	1-218-979-11	RES-CHIP	150K	5%	1/16W (TRV11/TRV11E)
R1231	1-218-949-11	RES-CHIP	470	5%	1/16W
R1232	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1233	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1301	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1302	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)

Ref. No.	Part No.	Description			Remarks
R1304	1-218-941-11	RES-CHIP	100	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R1305	1-218-981-11	RES-CHIP	220K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R1312	1-218-935-11	RES-CHIP	33	5%	1/16W
R1313	1-218-935-11	RES-CHIP	33	5%	1/16W
R1314	1-218-935-11	RES-CHIP	33	5%	1/16W
R1315	1-218-935-11	RES-CHIP	33	5%	1/16W
R1316	1-218-935-11	RES-CHIP	33	5%	1/16W
R1317	1-218-935-11	RES-CHIP	33	5%	1/16W
R1318	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R1319	1-218-953-11	RES-CHIP	1K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R1320	1-218-971-11	RES-CHIP	33K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R1321	1-218-973-11	RES-CHIP	47K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R1322	1-218-953-11	RES-CHIP	1K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R1323	1-218-971-11	RES-CHIP	33K	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R1324	1-218-949-11	RES-CHIP	470	5%	1/16W (TRV6/TRV6E:AUS,E,HK,JE,CN/TRV11/TRV11E:AUS,E,HK,JE,CN)
R1325	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1326	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1327	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1328	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1329	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1330	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R1401	1-208-927-11	METAL CHIP	47K	0.5%	1/16W (TRV11/TRV11E)
R1403	1-218-990-11	SHORT	0		(TRV11/TRV11E)
R1406	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1408	1-218-973-11	RES-CHIP	47K	5%	1/16W (TRV11/TRV11E)
R1410	1-218-989-11	RES-CHIP	1M	5%	1/16W (TRV11/TRV11E)
R1412	1-218-990-11	SHORT	0		(TRV11/TRV11E)
R1413	1-218-990-11	SHORT	0		(TRV11/TRV11E)
R1416	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1417	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1418	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV11/TRV11E)
R1421	1-218-990-11	SHORT	0		(TRV11/TRV11E)
R1422	1-218-990-11	SHORT	0		(TRV11/TRV11E)
R1426	1-218-990-11	SHORT	0		(TRV11/TRV11E)
R1430	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV11/TRV11E)
R1431	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV11/TRV11E)
R1432	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV11/TRV11E)
R1433	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV11/TRV11E)
R1434	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV11/TRV11E)
R1435	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV11/TRV11E)
R1436	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV11/TRV11E)
R1437	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV11/TRV11E)
R1439	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1440	1-218-973-11	RES-CHIP	47K	5%	1/16W (TRV11/TRV11E)
R1444	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV11/TRV11E)
R1446	1-218-953-11	RES-CHIP	1K	5%	1/16W (TRV11/TRV11E)
R1448	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1449	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV11/TRV11E)
R1450	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1452	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1453	1-218-949-11	RES-CHIP	470	5%	1/16W (TRV11/TRV11E)
R1455	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (TRV11/TRV11E)
R1456	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1458	1-218-959-11	RES-CHIP	3.3K	5%	1/16W (TRV11/TRV11E)
R1461	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1462	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1463	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1464	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1467	1-218-990-11	SHORT	0		(TRV11/TRV11E)
R1470	1-218-937-11	RES-CHIP	47	5%	1/16W (TRV11/TRV11E)
R1471	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1472	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1473	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1474	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1475	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1476	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1477	1-218-977-11	RES-CHIP	100K	5%	1/16W (TRV11/TRV11E)
R1479	1-218-990-11	SHORT	0		(TRV11/TRV11E)
R1481	1-218-990-11	SHORT	0		(TRV11/TRV11E)
R1482	1-218-959-11	RES-CHIP	3.3K	5%	1/16W (TRV11/TRV11E)
R1484	1-218-990-11	SHORT	0		(TRV11/TRV11E)
R1801	1-218-985-11	RES-CHIP	470K	5%	1/16W
R1803	1-208-719-11	METAL CHIP	33K	0.5%	1/16W
R1804	1-218-990-11	SHORT	0		
R1807	1-218-967-11	RES-CHIP	15K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R1808	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R1809	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1810	1-218-975-11	RES-CHIP	68K	5%	1/16W
R1811	1-218-969-11	RES-CHIP	22K	5%	1/16W
R1814	1-218-975-11	RES-CHIP	68K	5%	1/16W
R1815	1-218-989-11	RES-CHIP	1M	5%	1/16W
R1816	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1818	1-218-976-11	RES-CHIP	82K	5%	1/16W
R1819	1-218-990-11	SHORT	0		
R1821	1-218-941-11	RES-CHIP	100	5%	1/16W
R1822	1-218-941-11	RES-CHIP	100	5%	1/16W
R1823	1-218-941-11	RES-CHIP	100	5%	1/16W
R1824	1-218-970-11	RES-CHIP	27K	5%	1/16W
R1825	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1826	1-218-977-11	RES-CHIP	100K	5%	1/16W
R1830	1-218-990-11	SHORT	0		
R1831	1-218-990-11	SHORT	0		
R1832	1-218-941-11	RES-CHIP	100	5%	1/16W
R1833	1-218-941-11	RES-CHIP	100	5%	1/16W
R1901	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1902	1-218-973-11	RES-CHIP	47K	5%	1/16W
R1903	1-218-968-11	RES-CHIP	18K	5%	1/16W
R1904	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1905	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1906	1-208-701-11	METAL CHIP	5.6K	0.5%	1/16W
R1907	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R1908	1-218-967-11	RES-CHIP	15K	5%	1/16W
R1909	1-218-989-11	RES-CHIP	1M	5%	1/16W
R1911	1-218-879-11	METAL CHIP	22K	0.5%	1/16W
R1912	1-218-947-11	RES-CHIP	330	5%	1/16W
R1913	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1916	1-218-951-11	RES-CHIP	680	5%	1/16W
R1917	1-218-979-11	RES-CHIP	150K	5%	1/16W
R1918	1-218-979-11	RES-CHIP	150K	5%	1/16W
R1919	1-218-950-11	RES-CHIP	560	5%	1/16W
R1920	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R1921	1-218-949-11	RES-CHIP	470	5%	1/16W
R1922	1-218-971-11	RES-CHIP	33K	5%	1/16W
R1923	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R1924	1-218-947-11	RES-CHIP	330	5%	1/16W
R1925	1-218-949-11	RES-CHIP	470	5%	1/16W
R1926	1-218-935-11	RES-CHIP	33	5%	1/16W
		< VARISTOR >			
VDR001	1-801-862-11	VARISTOR, CHIP			
VDR140	1-803-742-21	VARISTOR, CHIP			(TRV11/TRV11E)
VDR141	1-803-742-21	VARISTOR, CHIP			(TRV11/TRV11E)
		< VIBRATOR >			
X301	1-781-045-21	VIBRATOR, CRYSTAL (24.576MHz)			
X501	1-781-044-21	VIBRATOR, CRYSTAL (20MHz)			
X701	1-767-203-21	VIBRATOR, CRYSTAL (36MHz)			
X801	1-767-980-21	VIBRATOR, CERAMIC (20MHz)			
X1101	1-767-980-21	VIBRATOR, CERAMIC (20MHz)			
X1102	1-760-458-21	VIBRATOR, CRYSTAL (32.768KHz)			
X1401	1-781-762-21	VIBRATOR, CRYSTAL (25.8048MHz)			(TRV11/TRV11E)

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Personal VIDEO Products Company

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DCR-TRV6/TRV6E/TRV11/ TRV11E/TRV20/TRV20E

RMT-808/809/811/812

US Model
Canadian Model
Korea Model
DCR-TRV6/TRV11/TRV20
AEP Model
UK Model
Australian Model
Chinese Model
DCR-TRV6E/TRV11E/TRV20E
E Model
Hong Kong Model
Tourist Model
DCR-TRV6/TRV6E/TRV11/
TRV11E/TRV20/TRV20E

SONY®

SERVICE MANUAL

Level 3

2000. 06

CORRECTION-1

Correct your service manual as shown below.
(00-002)

- Errors in SECTION 6. REPAIR PARTS LIST are corrected as follows.

✎ : Changed portion.

Page	INCORRECT				CORRECT			
	SECTION 6. REPAIR PARTS LIST				**SECTION 6. REPAIR PARTS LIST**			
	Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
6-33		A-7074-995-A	VC-241 (M) BOARD, COMPLETE (SERVICE) (TRV11/TRV11E:AUS,E,HK,JE,CN)			A-7094-995-A	VC-241 (M) BOARD, COMPLETE (SERVICE) (TRV11/TRV11E:AUS,E,HK,JE,CN)	
			************************************				************************************	
		A-7074-996-A	VC-241(L) BOARD, COMPLETE (SERVICE) (TRV6/TRV6E:AUS,E,HK,JE,CN)			A-7094-996-A	VC-241(L) BOARD, COMPLETE (SERVICE) (TRV6/TRV6E:AUS,E,HK,JE,CN)	
			************************************				************************************	
		A-7074-997-A	VC-241 (L-CE) BOARD, COMPLETE (SERVICE)(TRV6E:AEP,UK)			A-7094-997-A	VC-241 (L-CE) BOARD, COMPLETE (SERVICE)(TRV6E:AEP,UK)	
			************************************		✎		************************************	

Sony Corporation
Personal VIDEO Products Company

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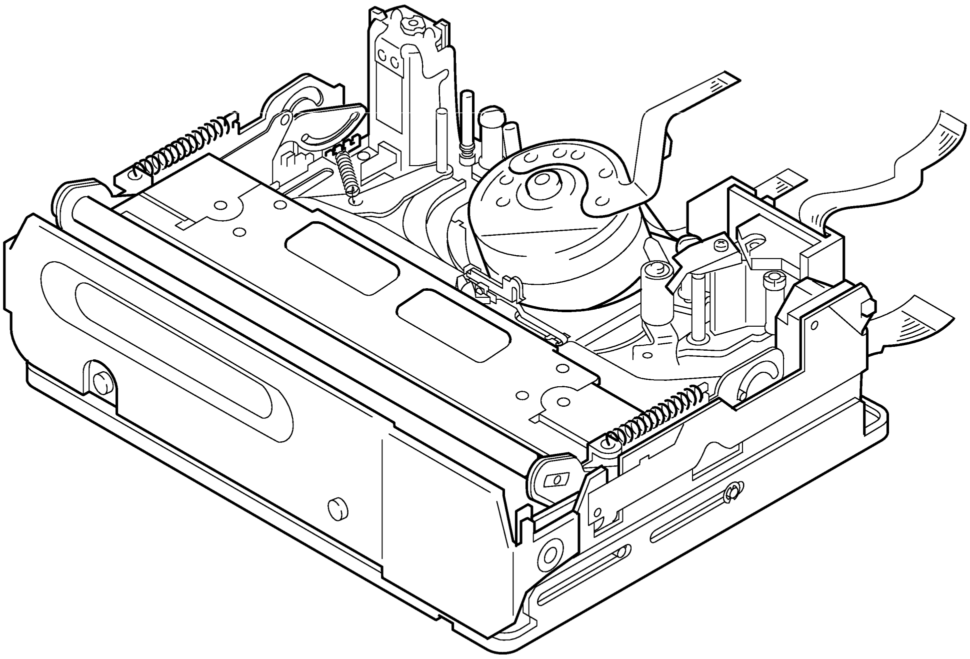
DV MECHANICAL ADJUSTMENT MANUAL VI

Ver 1.0 2000. 3

J MECHANISM

Mini DV Digital Video Cassette

Please use this manual with the service manual of the respective models.



Digital MECHANISM DECK

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1. Preparations for Check, Adjustment and Replacement of Mechanism Block

- Refer to the "DISASSEMBLY" section of the SERVICE MANUAL of the respective models for details of removing cabinets and printed wiring boards.
- When making any adjustment to a mechanism or replacing mechanical parts, be sure to use the Mode Selector II and select the appropriate status of the mechanical deck such that the mechanical status is suitable for the desired work. Refer to section "2-5. Mode Selector II" for details on how to enter the mode shown in a rectangle $\boxed{}$ mode in subsequent paragraphs of this manual.

1-1. Cassette Compartment Assy, Damper Assy

1. Removal Procedure

1) Set the $\boxed{\text{EJ}}$ mode.
2) When the cassette compartment moves up in the direction of the arrow Ⓑ, establish the $\boxed{\text{ULE}}$ mode.
3 Release the two claws ① and dowel of the damper assy and remove the damper assy.
4) Remove the shaft of the holder arm from the damper arm.
5) Remove the two screws (M1.4 × 2) ②.
6) Lift up the LS frame in the direction of the arrow Ⓒ.
7) Lift up the cassette compartment block assy in the direction of the arrow Ⓐ. While pushing the holder arm in the direction of the inside arrow Ⓔ, remove the cassette compartment block assy.

2. Attachment procedure

1) Set the $\boxed{\text{ULE}}$ mode.
2) Attach the holder arm of the cassette compartment block assy to the cassette compartment slide shaft on both sides of the LS chassis block assy from inside.
3) Install the LS frame pivot into the groove Ⓓ of the LS chassis. Drop down the LS frame in the direction opposite to Ⓒ.
4) Hook the LS frame T-side bent portion on the LS chassis notch Ⓕ.
5) Attach the LS frame with two screws (M1.4 × 2) ②.
Tightening torque: 0.054 ± 0.01 N•m (0.6 kg•cm).
6) While inserting the damper shaft of the cassette compartment block assy into slot of the damper arm, engage the two claws ① with the notch of the LS chassis block assy, and fix the dowel to the corresponding hole of the LS chassis block assy respectively.

Note: Check that the two claws ① and dowel do not come off.

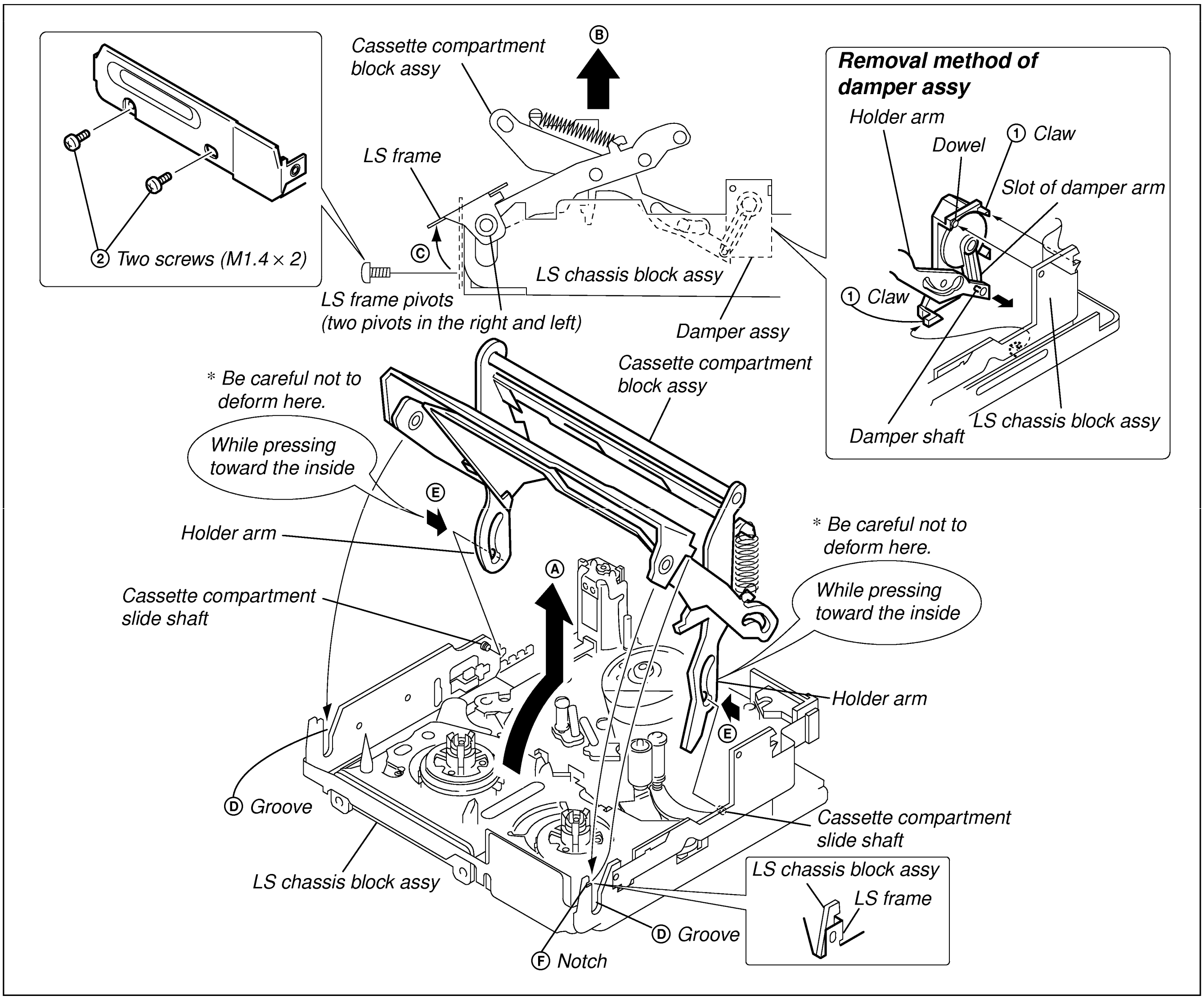

② Two screws (M1.4 × 2)
Cassette compartment block assy
Ⓑ
LS frame
Ⓒ
LS chassis block assy
LS frame pivots (two pivots in the right and left)
Damper assy
Removal method of damper assy
Holder arm
Dowel
① Claw
Slot of damper arm
① Claw
Damper shaft
LS chassis block assy
* Be careful not to deform here.
While pressing toward the inside
Ⓔ
Holder arm
Cassette compartment block assy
Cassette compartment slide shaft
Ⓐ
* Be careful not to deform here.
While pressing toward the inside
Holder arm
Ⓔ
Ⓓ Groove
LS chassis block assy
Cassette compartment slide shaft
LS chassis block assy
LS frame
Ⓓ Groove
Ⓕ Notch

Fig. 1-1

2. Periodic Inspection and Maintenance

- Be sure to perform the following maintenance and inspection so that the machine delivers its full performance and functions, and to protect the machine and tape. Also, perform the following maintenance items after completing the repair work, regardless of the number of hours the machine has been operated by the user.

2-1. Rotary Drum Cleaning

1) Press a wiping cloth (Ref. No. J-2) moistened with cleaning fluid (Ref. No. J-1) lightly against the rotary drum. Rotate the upper drum with a super-fine applicator slowly in the counter-clockwise direction to clean the rotary drum.

Caution: Never rotate the rotary drum by turning on the main power of the motor or rotate it in the clockwise direction. Never move the cloth vertically against the head tip, as this will surely damage the video head; the video head must not be cleaned by any other different methods.

2-2. Tape Path System Cleaning (Refer to Fig. 2-1.)

1) Set the EJECT state. Clean the tape running path (TG-1, -2, -3, -4, -5, -6 and -7, pinch roller and capstan shaft) and lower drum with a super-fine applicator (Ref. J-3) moistened with cleaning fluid.

Note 1: Be careful not to allow oil or grease of the various link mechanisms to get on the super-fine applicator (Ref. J-3).

Note 2: Once the super-fine applicator has been moistened with alcohol, do not use it to clean other mechanical parts such as the tape guide. However, the pinch roller is cleaned with alcohol.

Note 3: When cleaning the capstan shaft, be carefull not to move the oil seal. If the oil seal is moved, oil will leak.

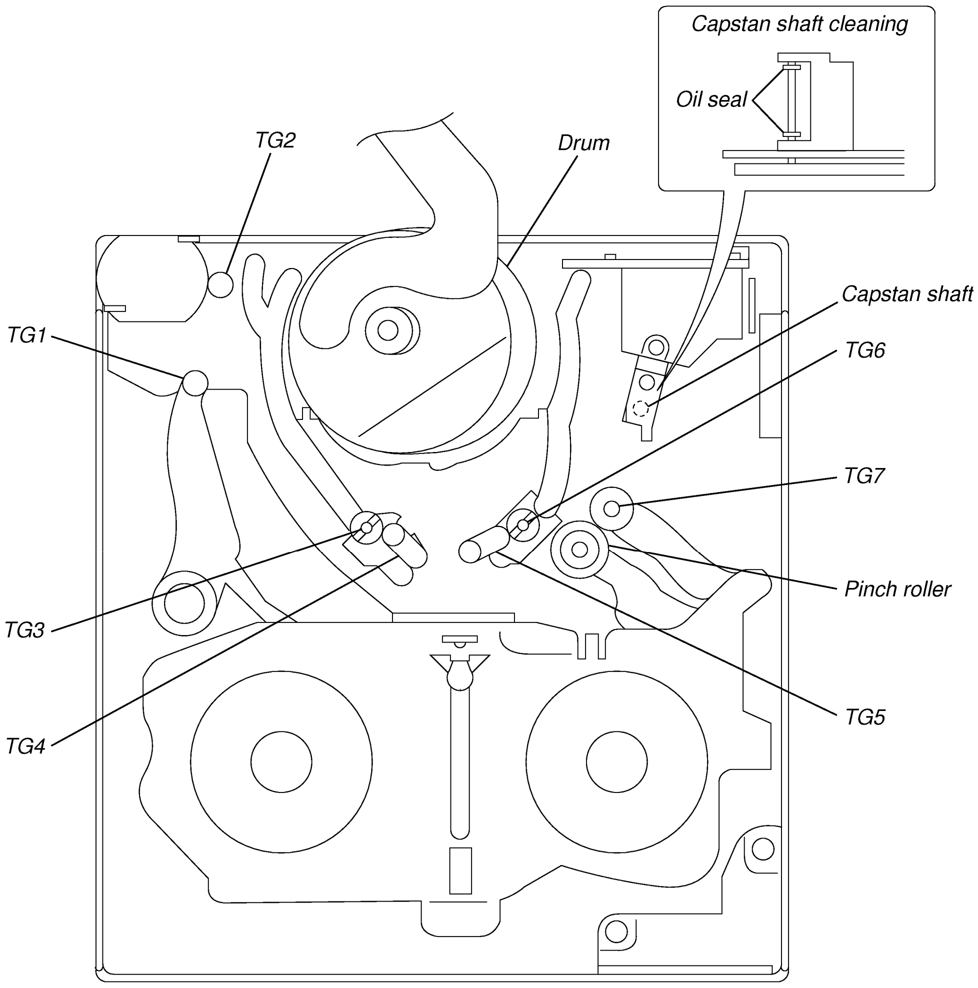


Fig. 2-1

2-3. Periodic Inspection List

Maintenance and inspection item		Operating hours (H)										Remarks
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000	
	Tape running surface cleaning	○	○	○	○	○	○	○	○	○	○	Be careful not to attach oil
	Rotary drum cleaning and degaussing	○	○	○	○	○	○	○	○	○	○	Be careful not to attach oil
Drive mechanism	Capstan bearing	—	☆	—	☆	—	☆	—	☆	—	☆	
	Loading motor	—	☆	—	☆	—	☆	—	☆	—	☆	
Performance check	Abnormal sound	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	
	Back-tension measurement	—	☆	—	☆	—	☆	—	☆	—	☆	
	Brake system	—	☆	—	☆	—	☆	—	☆	—	☆	
	Brake system	—	☆	—	☆	—	☆	—	☆	—	☆	
	FWD/RVS torque measurement	—	☆	—	☆	—	☆	—	☆	—	☆	

○: Cleaning, ☆: Check

Note 1: When the machine is overhauled, replace the parts referring to the above list.

Note 2: Grease

- Be sure to use the specified grease only. (If grease of different viscosity is used, it can cause various troubles.)
- The grease used for bearings must not contain any dust or other matter, otherwise excessive abrasion and seizure of the bearing could occur.
- A drop of grease means the amount of grease as shown in the illustration, which is the amount that is attracted to the tip of a rod of 2 mm diameter.
- FLOIL grease (SG-941): Part No. 7-662-001-39

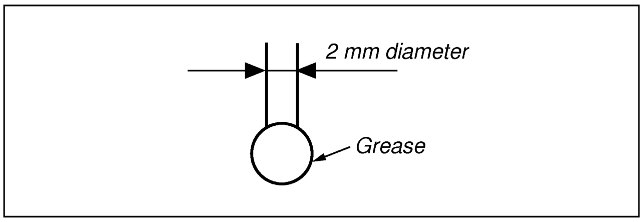


Fig. 2-2

2-4. Service Jigs and Tools

Ref. No.	Name	Part code	Jig inscription	Used for
J-1	Cleaning fluid	Y-2031-001-0		
J-2	Wiping cloth	7-741-900-53		
J-3	Super-fine applicator (made by Nippon Applicator (P752D))	—		
J-4	Mirror (small oval type)	J-6080-840-A	GD-2038	Tape path
J-5	Tracking tape (XH2-1) (NTSC, PAL)	8-967-997-01		Tape path
J-6	Mini DV torque cassette	J-6082-360-A		
J-7	TG1 adjustment jig (FWD position adjustment)	J-6082-492-A		
J-8	TG1 FWD adjustment screwdriver	J-6082-364-A		For TG1 FWD position adjustment
J-9	Dummy drum (for TG36) (J mechanism)	J-6082-490-A		
J-10	TG36 gauge	J-6082-491-A		
J-11	Torque screwdriver	J-9049-330-A		
J-12	Tape path screwdriver	J-6082-026-A		For tape path adjustment
J-13	Adjustment remote commander (RM-95 upgraded) * Note 1	J-6082-053-B		
J-14	Mode Selector II	J-6082-282-B		General adjustment (ROM version 1.7)
J-15	Mode Selector II conversion board (J)	J-6082-493-A		
J-16	Mode Selector II ROM (supporting J mechanism) * Note 2	J-6082-314-E		ROM for Mode Selector II

Other required equipment: Oscilloscope

Note 1: If the microprocessor in the adjustment remote commander is not the new one (UPD7503G-C56-12), the pages cannot be switched. In this case, replace it with the new microprocessor (8-759-148-35).

Note 2: This is the ROM used for upgrading the version of Mode Selector II to enable it to be used for the J mechanism.

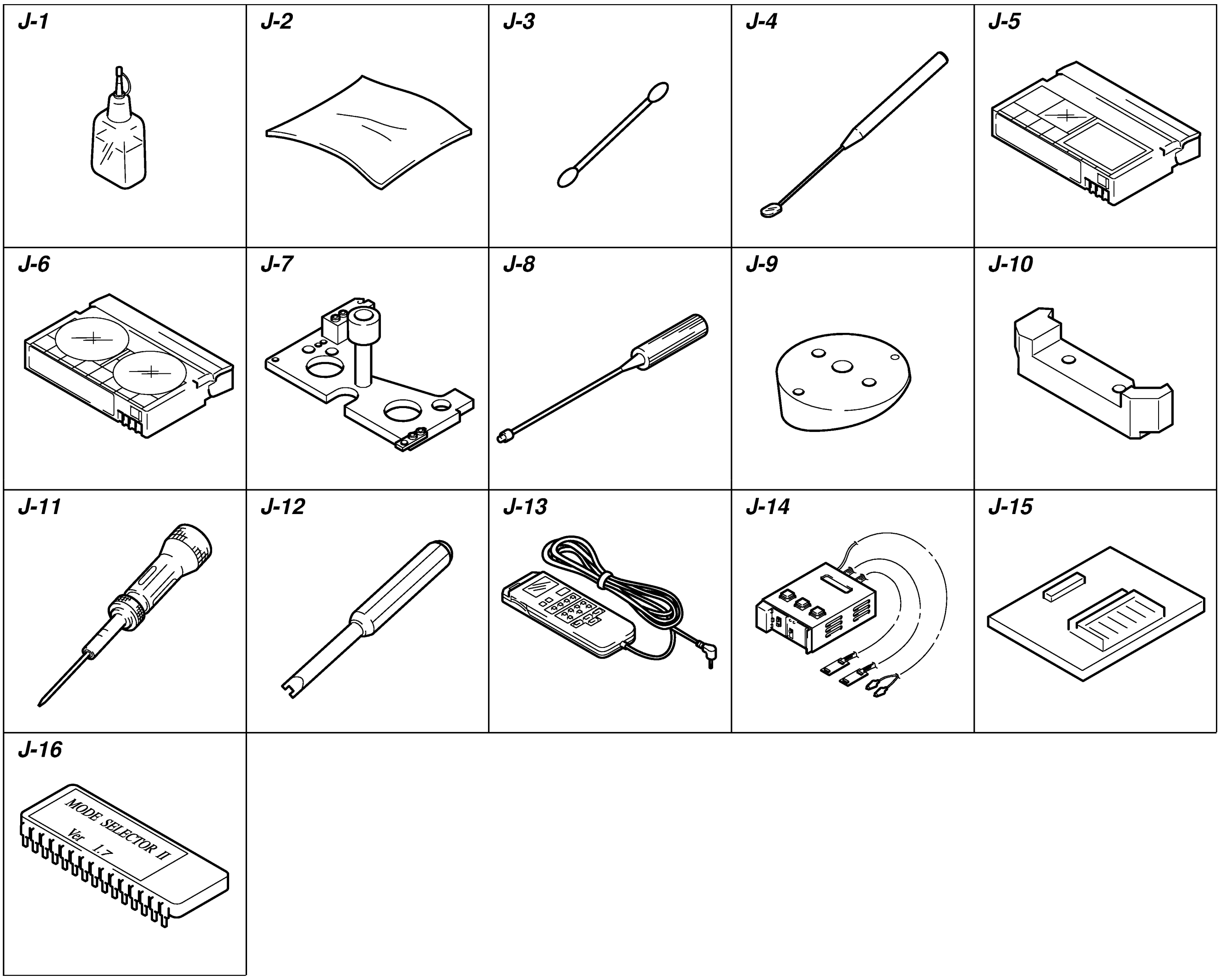

J-1
J-2
J-3
J-4
J-5
J-6
J-7
J-8
J-9
J-10
J-11
J-12
J-13
J-14
J-15
J-16
MODE SELECTOR II
Ver. 1.7

Fig. 2-3

2-5. Mode Selector II Operating Procedure

2-5-1. Introduction

The Mode Selector II is a mechanism drive tool that assists maintenance work of the various mechanism decks. It has the following functions.

1. Manual Test

In this mode, the motor of the mechanism deck is powered only during the period while the switch is turned on manually. Using the Manual Test, the operator can freely control the motor of the mechanism deck.

2. Step Test

In this mode, the motor of the mechanism deck is kept turned on until the mechanical status is changed from the present mechanical status that is obtained from the sensor information. The Step Test is used to confirm a series of movements of the mechanism deck.

3. Auto Test

The Mode Selector II stores the status transition table in its memory as data indicating the respective modes of the mechanism deck. The status transition table can be used to confirm whether a mechanism deck is operating normally or has abnormality from a series of movements of a mechanism deck. If an abnormal status transition is detected during operation, the "NG" indication appears and the mechanism stops moving.

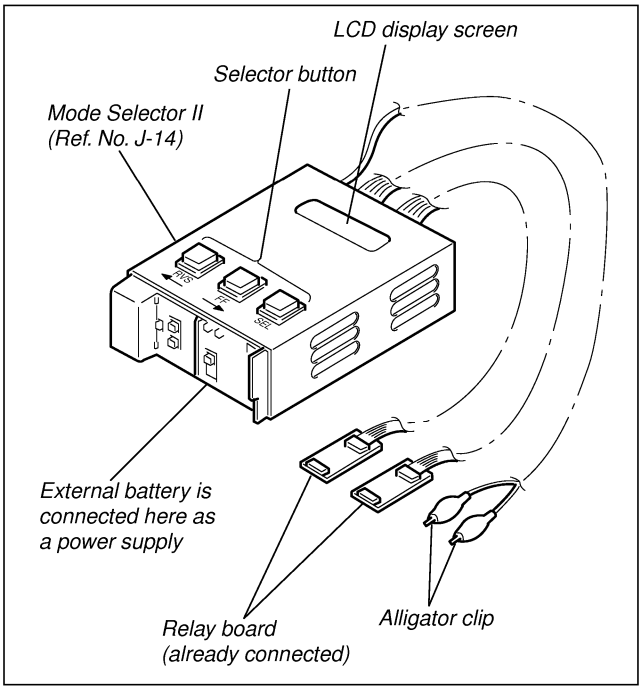

LCD display screen
Selector button
Mode Selector II
(Ref. No. J-14)
RVS
FF
SEL
External battery is
connected here as
a power supply
Relay board
(already connected)
Alligator clip

Fig. 2-4

Mode Selector II (J-6082-282-B) connection diagram

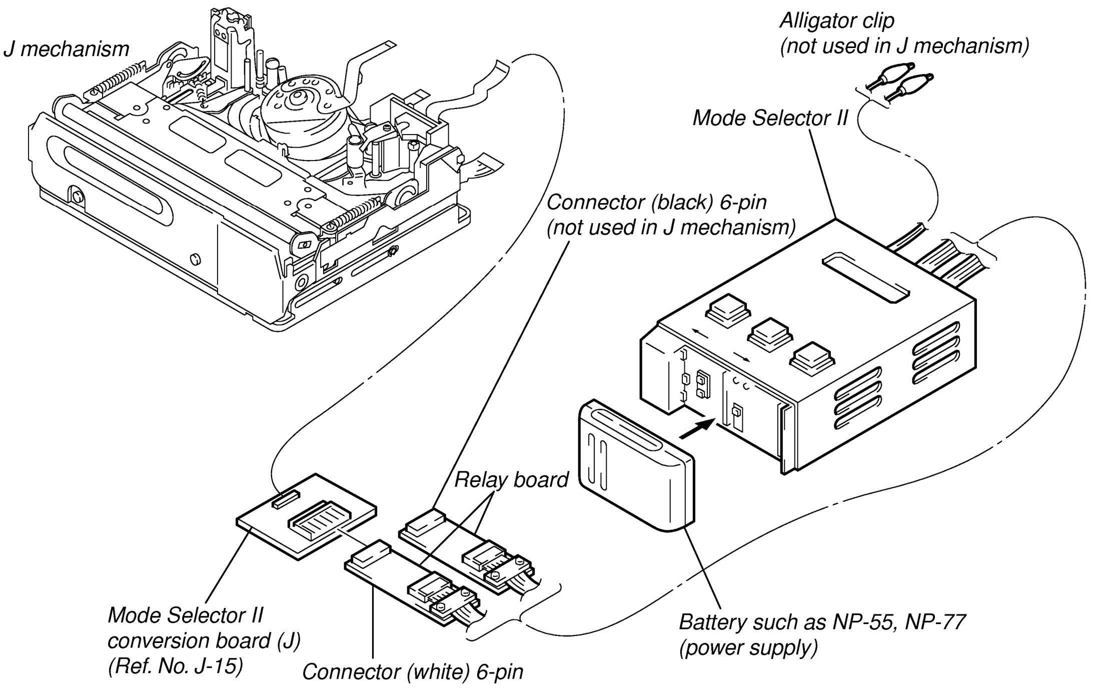
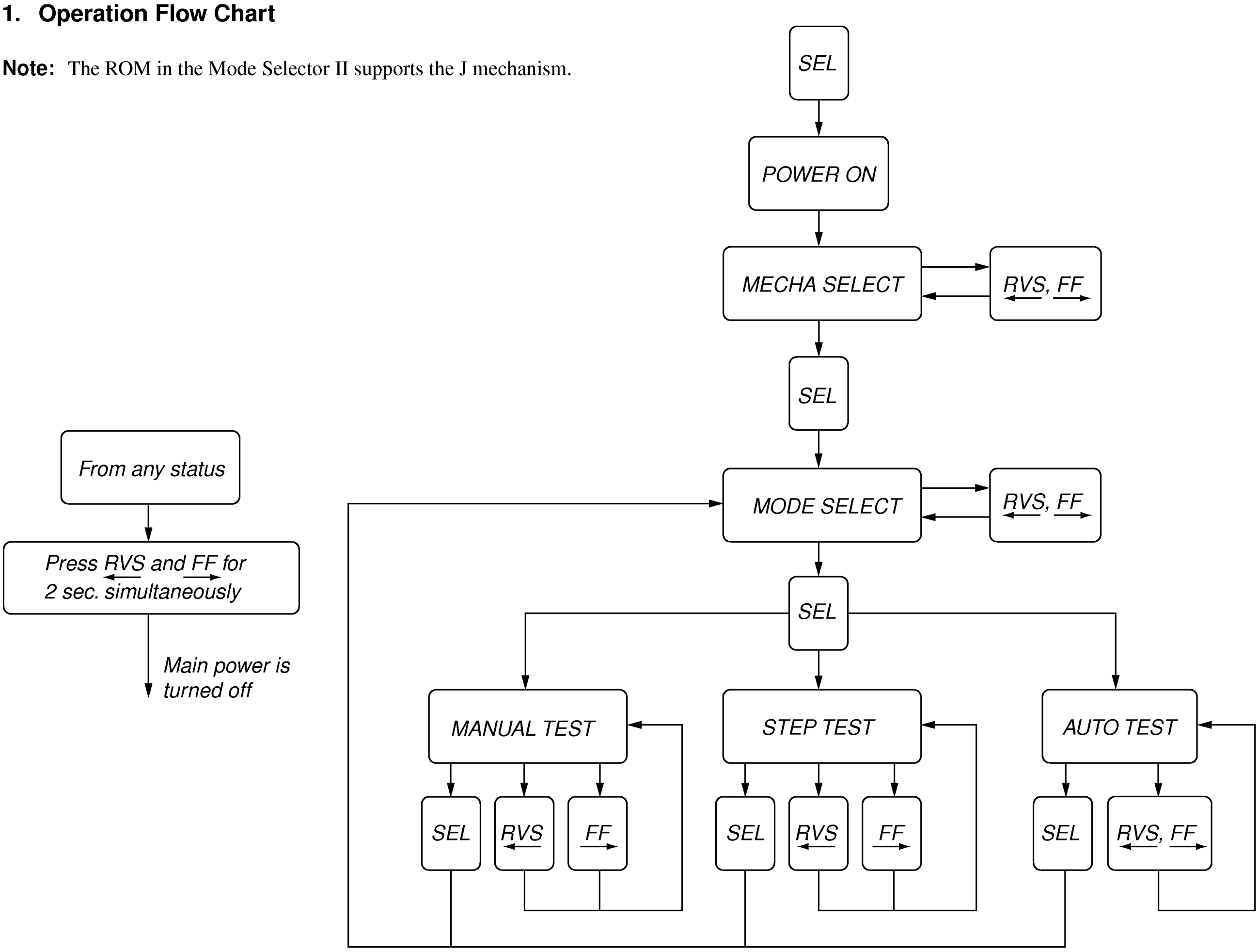

J mechanism
Alligator clip
(not used in J mechanism)
Mode Selector II
Connector (black) 6-pin
(not used in J mechanism)
Relay board
Mode Selector II
conversion board (J)
(Ref. No. J-15)
Connector (white) 6-pin
Battery such as NP-55, NP-77
(power supply)

Fig. 2-5

2-5-2. Operation

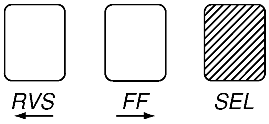
1. Operation Flow Chart

Note: The ROM in the Mode Selector II supports the J mechanism.


SEL
POWER ON
MECHA SELECT
RVS, FF
SEL
From any status
Press RVS and FF for 2 sec. simultaneously
Main power is turned off
MODE SELECT
RVS, FF
SEL
MANUAL TEST
STEP TEST
AUTO TEST
SEL
RVS
FF
SEL
RVS
FF
SEL
RVS, FF

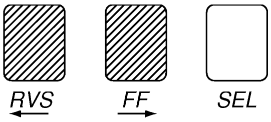
2. Mode Selector II Power On

Turn on the main power of the Mode Selector II as follows.
Press the SEL button.



3. Mode Selector II Power Off

Turn off the main power of the Mode Selector II as follows.
Press the RVS and FF buttons at the same time for 2 seconds or longer while the power is on.



4. Mecha Select

When the main power is turned on, the MECHA SELECT display appears on the LCD screen. Select the desired mechanism name using the RVS and FF buttons. Selection is complete when the SEL button is pressed. (Fig. A shows the J mechanism.)

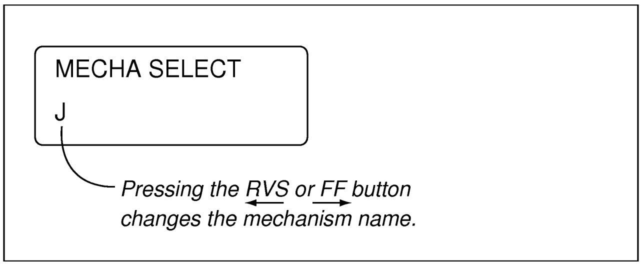

MECHA SELECT
J
Pressing the RVS or FF button changes the mechanism name.

Fig. a

5. Test Type Select

Using the RVS and FF buttons, select a desired test type from the three types of "MANUAL", "STEP" and "AUTO". Selection is complete when the SEL button is pressed.

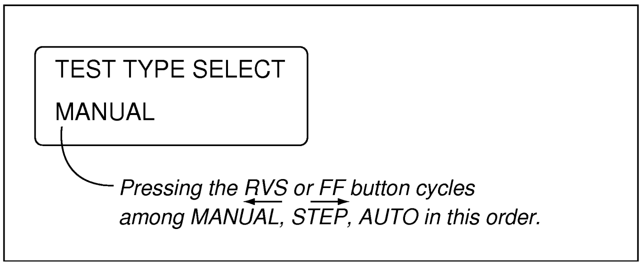

TEST TYPE SELECT
MANUAL
Pressing the RVS or FF button cycles among MANUAL, STEP, AUTO in this order.

Fig. b

6. Manual Test

In this test, the motor of the mechanism deck is turned on only during the period while the RVS or FF button is pressed manually.

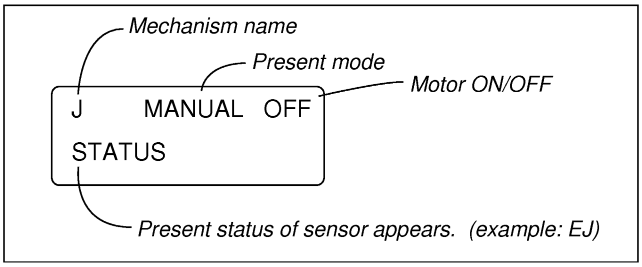

Mechanism name
Present mode
Motor ON/OFF
J
MANUAL
OFF
STATUS
Present status of sensor appears. (example: EJ)

Fig. c

7. Step Test

In this test, the direction of motor movement is determined by the RVS and FF buttons. The motor of the mechanism deck is kept turned on until the mechanical status is changed from the present mechanical status that is obtained from the sensor information.

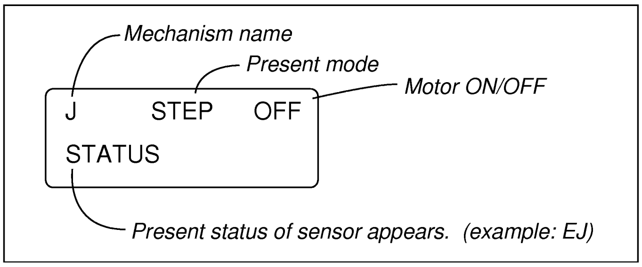

Mechanism name
Present mode
Motor ON/OFF
J
STEP
OFF
STATUS
Present status of sensor appears. (example: EJ)

Fig. d

8. Auto Test

In this test, the mechanism deck is tested as to whether it performs a series of movements correctly in accordance with the operation sequence that is memorized earlier for each type of deck, by checking the output signals from sensors with the stored memory. Turning on the RVS or FF button performs the same operation.

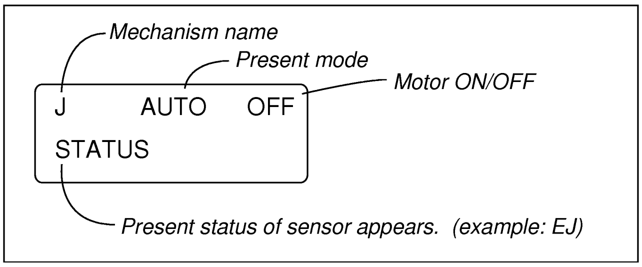

Mechanism name
Present mode
Motor ON/OFF
J
AUTO
OFF
STATUS
Present status of sensor appears. (example: EJ)

Fig. e

www.manualscenter.com

2-5-3. Mechanism Status (Position) Transition Table Using Mode Selector II

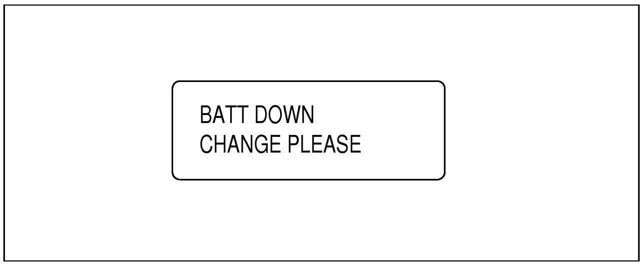
After selecting a mechanism deck, select either the MANUAL or STEP test (not AUTO) using the Mode Selector II. The desired mechanism status (position) can be specified by pressing the RVS or FF button. (The selected status appears on STATUS.)

EJ↔ULE↔SR↔GL↔STOP↔RP

MD name Code				J Mechanism
A	B	C		
0	0	1	1	EJ
1	0	1	2	ULE
1	0	0	3	SR
1	1	0	4	GL
0	1	0	5	STOP
0	1	1	6	RP

2-5-4. Battery Alarm Indication

When the level of the battery used to supply power to this system decreases, this display appears asynchronously. When this happens, all operations are disabled and the battery must be replaced.



BATT DOWN
CHANGE PLEASE

Fig. f

3. Check, Adjustment and Replacement of Mechanical Parts

3-1. Drum

1. Removal procedure

1) Loosen the three screws (M1.4 × 2) ① fixing the drum and remove the drum.

2. Attachment procedure

1) Align the two reference holes A and B on the rear of the drum with the position setting reference pins A and B of the drum base assy.
2) Install the drum with the three screws (M1.4 × 2) ① and tighten the screws in order from Ⓐ, then Ⓑ and finally Ⓒ.
   Tightening torque: 0.059 ± 0.01 N•m (0.6 kg•cm)
3) Clean the drum referring to section 2-1.
4) Perform the tape path adjustment. (Refer to section 4, "Tape Path Adjustment".)

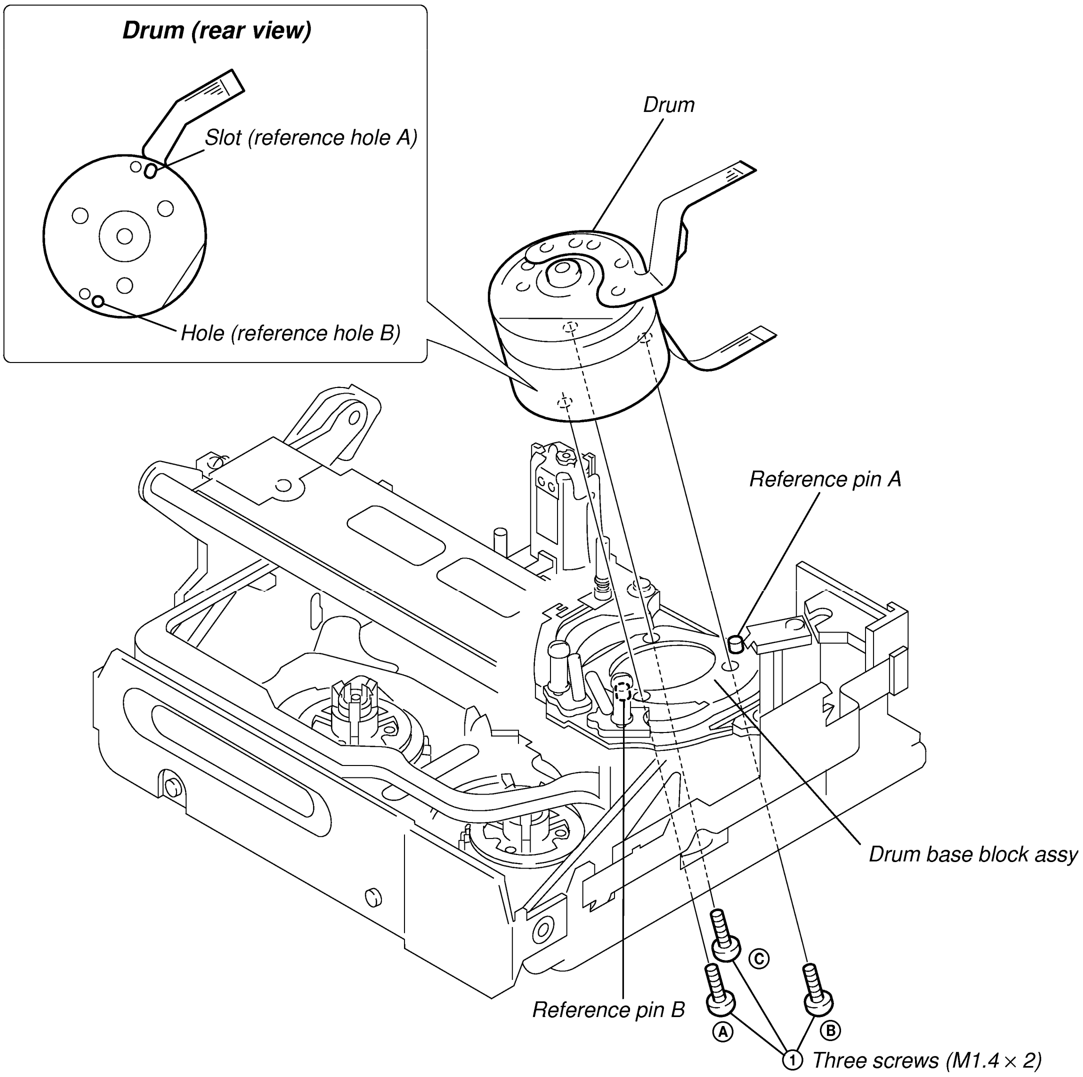

Drum (rear view)
Slot (reference hole A)
Hole (reference hole B)
Drum
Reference pin A
Drum base block assy
Reference pin B
Ⓒ
Ⓐ
Ⓑ
① Three screws (M1.4 × 2)

Fig.3-1

3-2. L. Motor Holder Block Assy (Loading) and FP-228 Flexible Wiring Board (DEW Sensor)

1. Removal procedure

1) Remove soldering ② from the L motor holder block assy (loading). Remove the FP-100 flexible wiring board.
2) Remove soldering ③ from the flexible wiring board FP-100. Remove the FP-228 flexible wiring board (DEW sensor).

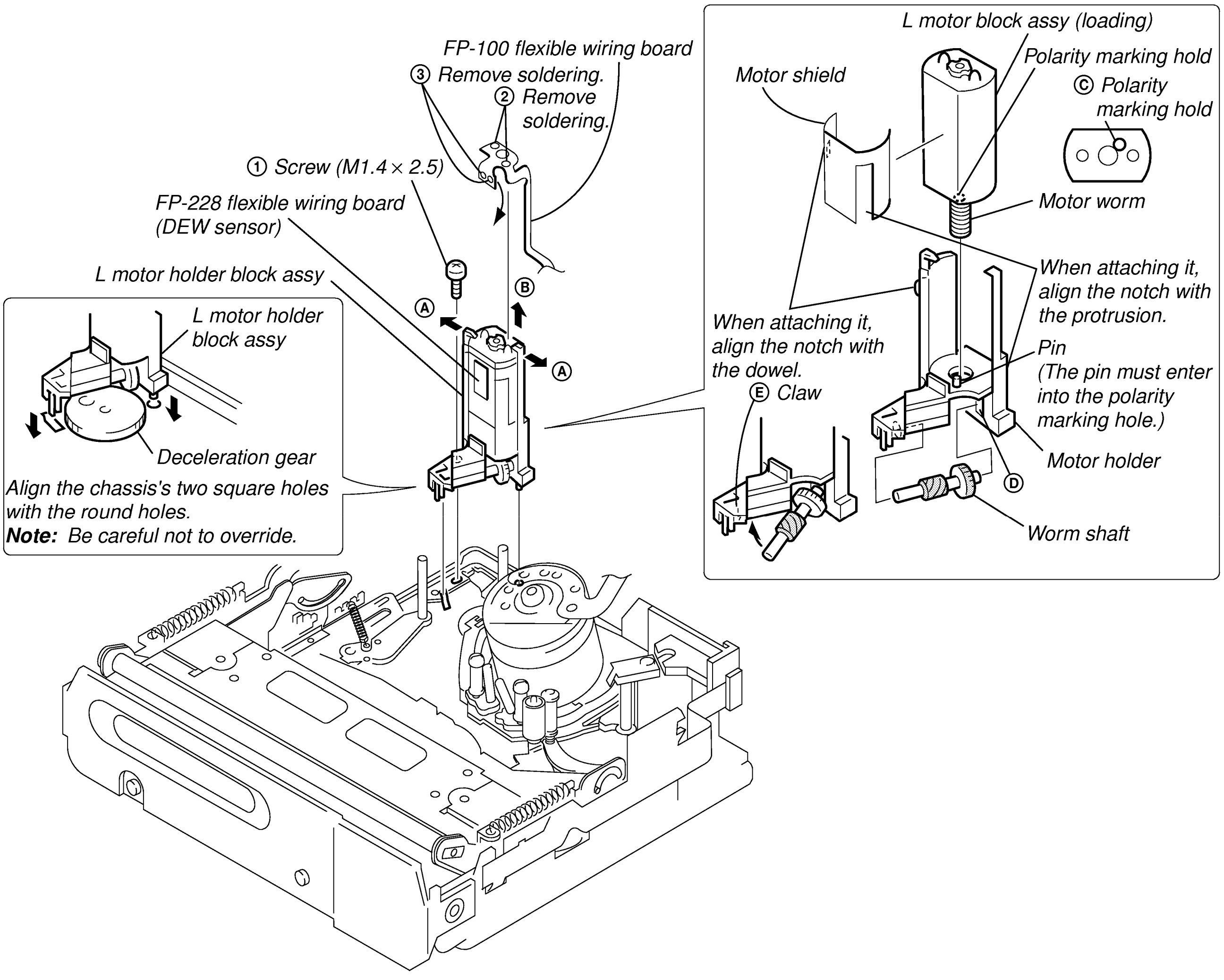
Note: Since the FP-228 flexible wiring board (DEW sensor) is attached to the motor shield by adhesive agent, be careful not to break the flexible board when removing soldering.

3) Remove the screw (M1.4 × 2.5) ①.
4) Remove the L motor holder block assy.
5) Unlock the claw Ⓔ and remove the worm shaft.
6) Remove the motor shield.
7) Unlock the two claws Ⓐ of the motor holder. Remove the L motor block assy (loading) in the direction of Ⓑ.

Note: Be careful not to touch the DEW sensor.

2. Attachment procedure

1) Check the direction of the polarity marking Ⓒ of the L motor block assy (loading). Attach the L motor block assy (loading) to the motor holder so that the L motor block assy (loading) faces the worm shaft side.
2) While aligning the slot and dowel with the motor shield, attach the motor holder to the motor holder.
3) Apply grease (1/2 drop) between the worm shaft gear and gear tooth.
4) While the worm gear is engaged with the worm shaft gear, insert the worm shaft tip into the groove Ⓑ and fix the worm shaft under the claw Ⓔ.
5) While aligning the chassis's two square holes with the two round holes, attach the motor holder block assy with the screw (M1.4 × 2.5) ①.
   Tightening torque: 0.059 ± 0.01 N•m (0.6 kg•cm)
6) Connect FP-228 (DEW sensor) to the FP-100 flexible wiring board by soldering. Attach the DEW sensor to the motor shield.
7) Connect the FP-100 flexible wiring board to the motor holder block assy (loading) by soldering.


FP-100 flexible wiring board
③ Remove soldering.
② Remove soldering.
① Screw (M1.4 × 2.5)
FP-228 flexible wiring board (DEW sensor)
L motor holder block assy
L motor holder block assy
Deceleration gear
Ⓐ
Ⓑ
Ⓐ
L motor block assy (loading)
Motor shield
Polarity marking hold
Ⓒ Polarity marking hold
Motor worm
When attaching it, align the notch with the protrusion.
When attaching it, align the notch with the dowel.
Ⓔ Claw
Pin
(The pin must enter into the polarity marking hole.)
Motor holder
Ⓓ
Worm shaft

Align the chassis's two square holes with the round holes.
Note: Be careful not to override.

When attaching it, coat the hatched ▨ portion with grease.

Fig. 3-2

3-3. Retainer Plate Assy, LED Retainer

1. Removal procedure

1) While pressing the claw of the LED retainer in the direction of the arrow Ⓐ, remove the LED retainer.
2) Remove the LED portion ② of the FP-102 flexible wiring board.
3) Remove the two screws (M1.4 × 1.4) ①.
4) In order to remove the retainer plate assy, because it is hooked with shaft A, shaft B and shaft C, remove the retainer plate assy while moving it in the direction of the arrow Ⓑ.

2. Attachment procedure

1) Hook shaft A, shaft B and shaft C on notch A, notch B and notch C of the retainer plate assy in this order.
2) Attach the retainer plate assy with two screws (M1.4 × 1.4) ①. Tightening torque: 0.059 ± 0.01 N•m (0.6 kg•cm)
3) Route the FP-102 flexible wiring board as shown and install the LED into the prism as shown.
4) Hook the LED retainer on Ⓓ, attach it to Ⓔ and fix them.

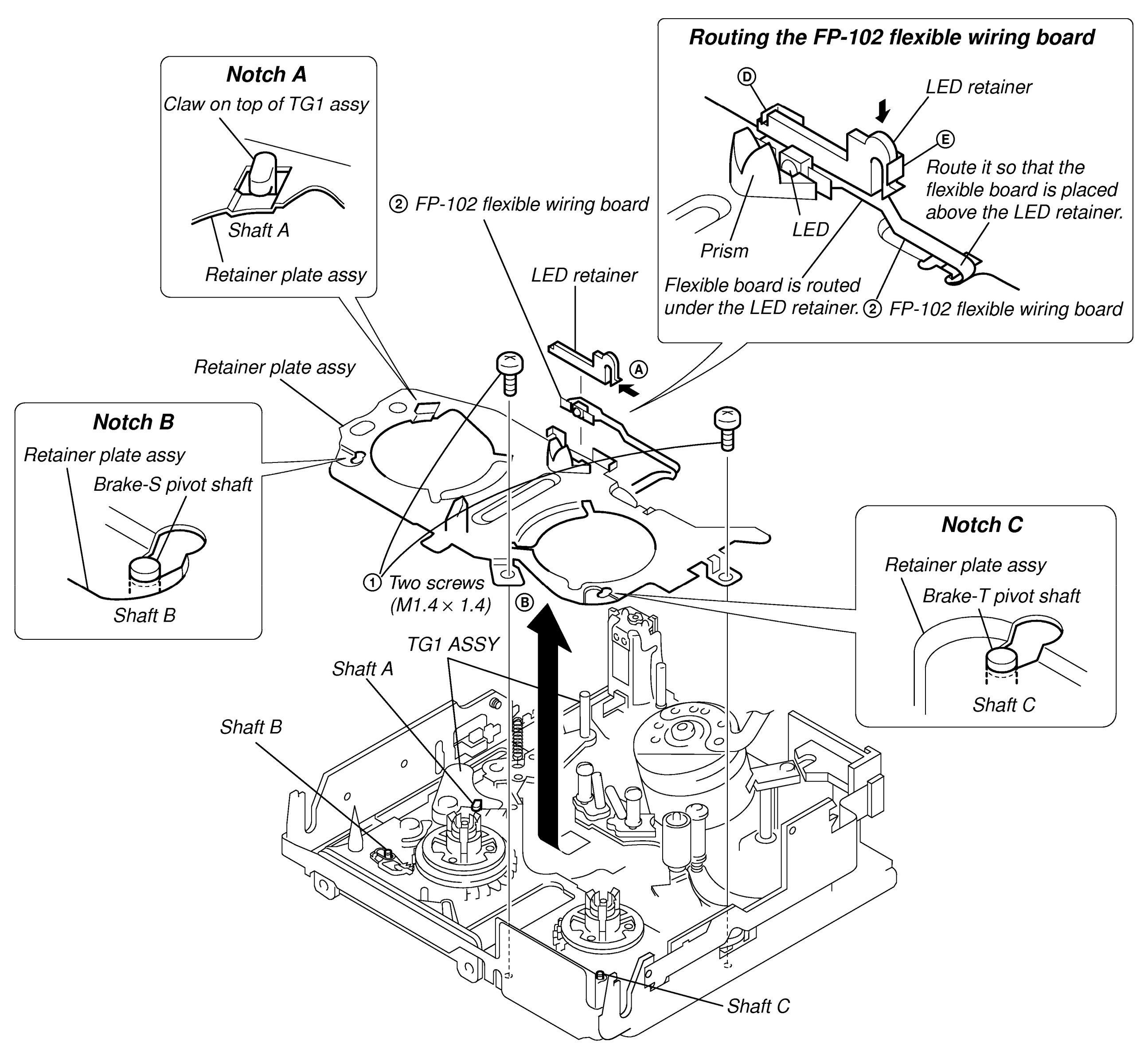

Routing the FP-102 flexible wiring board
Ⓓ
LED retainer
Ⓔ
Route it so that the flexible board is placed above the LED retainer.
LED
Prism
Flexible board is routed under the LED retainer.
② FP-102 flexible wiring board
Notch A
Claw on top of TG1 assy
Shaft A
Retainer plate assy
② FP-102 flexible wiring board
LED retainer
Ⓐ
Retainer plate assy
Notch B
Retainer plate assy
Brake-S pivot shaft
Shaft B
① Two screws (M1.4 × 1.4)
Ⓑ
TG1 ASSY
Shaft A
Shaft B
Notch C
Retainer plate assy
Brake-T pivot shaft
Shaft C
Shaft C

Fig. 3-3

3-4. Brake-T Block Assy, T-reel Table Assy, Gooseneck Gear Assy

1. Removal procedure

1) Remove the brake-T block assy from the brake-T pivot shaft.
2) While pressing the reel claw retainer Ⓐ of the T-reel table assy down in the direction of Ⓑ, remove the reel claw Ⓒ.
3) Remove the gooseneck assy from the relay gear shaft.

Note: Be careful not to break the reel claw.

2. Attachment procedure

1) Insert the gooseneck gear assy into the center hole of the relay gear shaft. Bend the gooseneck gear assy to the S-reel table assy side.
2) Attach the brake-T block assy to the brake-T pivot shaft Ⓓ.
3) Move the brake-T counter-clockwise so that T-brake is freed. While pressing down the reel claw of the T-reel assy, fix the T-reel to the reel shaft-T by rotating the reel.
4) Check that the brake spring-T works correctly by rotating the T-reel table assy 30 degrees in the clockwise and counter-clockwise directions.

Note: The retainer on top of the brake spring-T must be hooked on the brake-T pivot shaft Ⓓ and moved down to the groove.

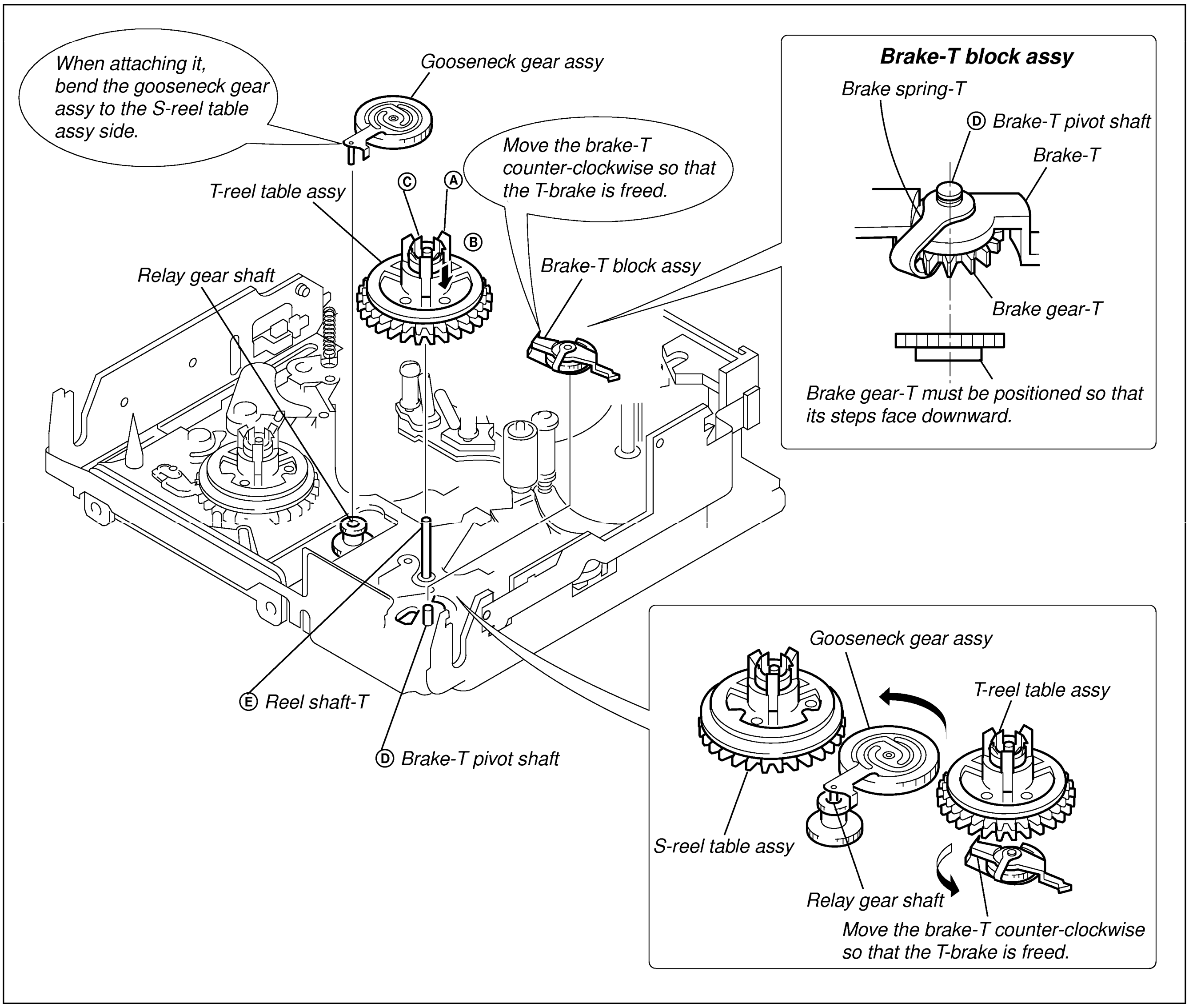

When attaching it, bend the gooseneck gear assy to the S-reel table assy side.
Gooseneck gear assy
T-reel table assy
Ⓒ
Ⓐ
Ⓑ
Move the brake-T counter-clockwise so that the T-brake is freed.
Relay gear shaft
Brake-T block assy
Ⓔ Reel shaft-T
Ⓓ Brake-T pivot shaft
Brake-T block assy
Brake spring-T
Ⓓ Brake-T pivot shaft
Brake-T
Brake gear-T
Brake gear-T must be positioned so that its steps face downward.
Gooseneck gear assy
T-reel table assy
S-reel table assy
Relay gear shaft
Move the brake-T counter-clockwise so that the T-brake is freed.

Fig. 3-4

3-5. TG1 Assy, Tension Coil Spring (Tension Regulator)

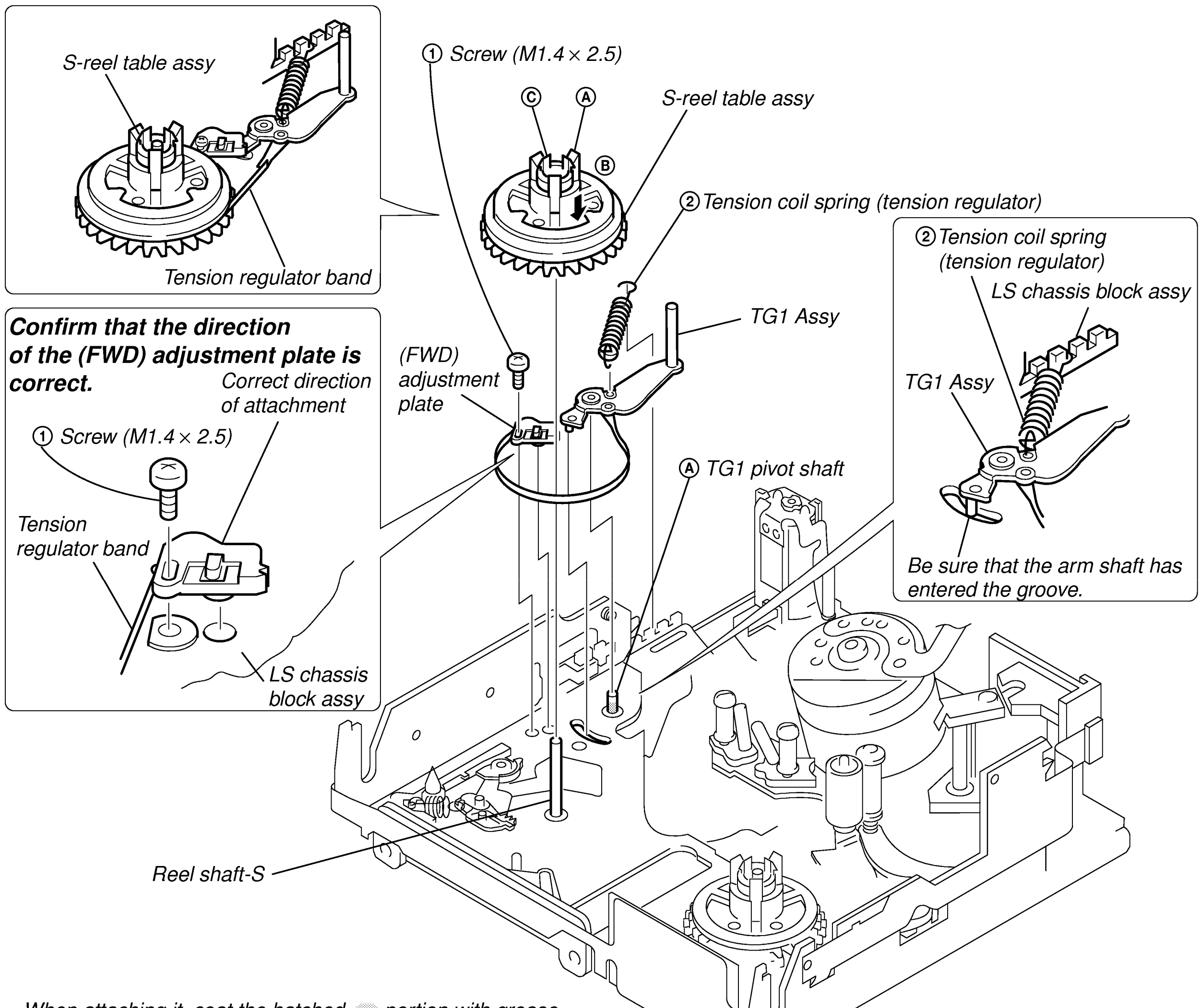
1. Removal procedure

1) Remove the screw (M1.4 × 2.5) ①.
2) Remove the tension coil spring.
3) Remove the TG1 assy tension regulator band.
4) Remove the (FWD) adjustment plate from the S-reel table. Place it between the T-reel table assy and pinch arm assy.
5) While pressing down the reel claw retainer Ⓐ of the S-reel table assy in the direction of Ⓑ, remove the reel claw Ⓒ.

Note 1: Be careful not to deform the tension regulator band.
Note 2: Be careful that grease does not attach to the tension regulator band.

2. Attachment procedure

1) Coat the root and its surroundings on TG1 pivot shaft Ⓐ with grease (1/4 drop). (Strictly observe the coating position and specified amount of grease.)
2) Attach the S-reel table assy to the reel shaft-S.
3) Attach the TG1 assy to the TG1 pivot shaft Ⓐ. Note that the TG1 drive shaft has entered the groove of the LS block assy at this moment.
4) Wrap the tension regulator band around the S-reel table assy. Fix it with the screw (M1.4 × 2.5) ① while ensuring that direction of the (FWD) adjustment plate is correct as shown.
5) Hook the tension coil spring ② on the TG1 assy and on the LS chassis block assy.
6) Clean the tip of the TG1 pivot shaft with a super-fine applicator (Ref. J-3) moistened with cleaning fluid.
7) Perform the (FWD) position adjustment referring to section 3-6.
8) Perform the FWD back-tension adjustment referring to section 3-7.
9) Perform the reel torque check referring to section 3-8.


S-reel table assy
Tension regulator band
Confirm that the direction of the (FWD) adjustment plate is correct.
Correct direction of attachment
① Screw (M1.4 × 2.5)
Tension regulator band
LS chassis block assy
① Screw (M1.4 × 2.5)
Ⓒ
Ⓐ
Ⓑ
S-reel table assy
② Tension coil spring (tension regulator)
TG1 Assy
(FWD) adjustment plate
Ⓐ TG1 pivot shaft
Reel shaft-S
② Tension coil spring (tension regulator)
LS chassis block assy
TG1 Assy
Be sure that the arm shaft has entered the groove.

When attaching it, coat the hatched ▨ portion with grease.
FLOIL grease (SG-941): Part No. 7-662-001-39

Fig. 3-5

3-6. TG1 FWD Position Adjustment

When the TG1 assy or S-reel table is replaced, or when a part constituting these parts is replaced, perform the following adjustment.

- TG1 FWD Position Adjustment
- FWD Back-tension Adjustment (Refer to section 3-7.)
- Reel table (RVS) torque check (Refer to section 3-8.)

1. Adjustment procedure

1) Establish the $\boxed{\text{RP}}$ mode.
2) Install the TG1 adjustment jig (Ref. No. J-7) as specified by the S/T position setting.
   Note: Be careful not to damage the flexible wiring board.
3) Attach the torque screwdriver (Ref. No. J-11) and the TG1 FWD adjustment screwdriver (Ref. No. J-8) to the adjustment screw block.
4) While rotating the adjustment screwdriver a little, press it down lightly so that it is aligned with the gear of the (FWD) adjustment plate.
5) Loosen the adjustment screw that is tentatively tightened by the torque screwdriver. Perform adjustment so that TG1 comes to the center of the gauge's groove when viewed from directly above the TG1 adjustment jig (Ref. No. J-7). Then tighten the adjustment screw.
   Tightening torque: 0.0588 N•m (0.6 kg•cm).
6) Check again that the TG1 position remains in the correct position, then remove the jig.

• When clearance in the L motor holder block assy (loading) side is small
➡ Move the position in the direction of the arrow ➡.
• When clearance in the TG2 guide side is small
⇦ Move the position in the direction of the arrow ⇦.

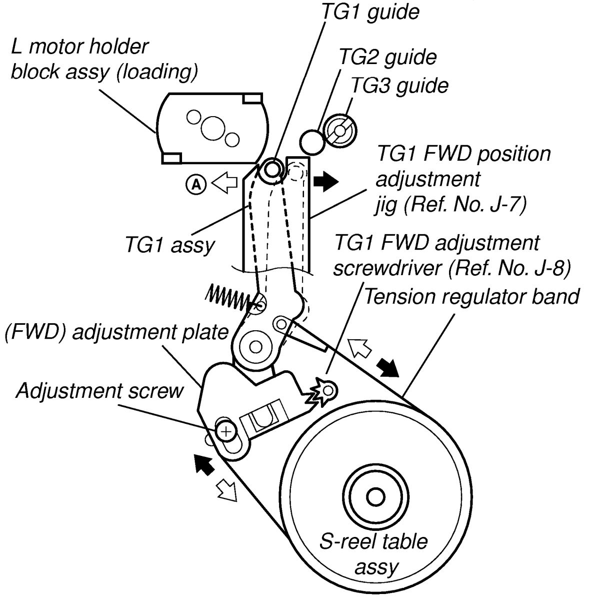

TG1 guide
L motor holder block assy (loading)
TG2 guide
TG3 guide
TG1 FWD position adjustment jig (Ref. No. J-7)
A
TG1 assy
TG1 FWD adjustment screwdriver (Ref. No. J-8)
Tension regulator band
(FWD) adjustment plate
Adjustment screw
S-reel table assy

Fig. 3-6

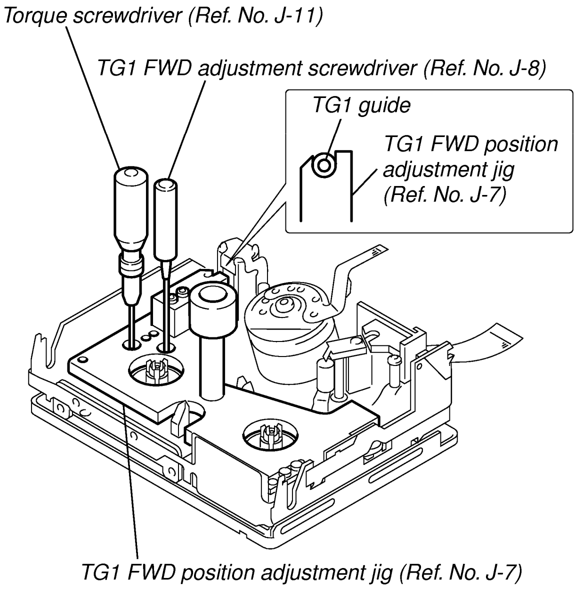

Torque screwdriver (Ref. No. J-11)
TG1 FWD adjustment screwdriver (Ref. No. J-8)
TG1 guide
TG1 FWD position adjustment jig (Ref. No. J-7)
TG1 FWD position adjustment jig (Ref. No. J-7)

Fig. 3-7

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3-7. FWD Back-tension Adjustment

1. Adjustment procedure

1) Install the Mini DV torque cassette (Ref. No. J-6).
2) Set the RP mode. Confirm that the torque reading of the supply side is in the range of 0.45 to 0.55 mN•m (4.5 to 5.6 g•cm) including fluctuation. If the torque reading is outside the specified range, perform the following adjustment.

- If the torque reading value is higher than the specification:
  (Reduce the spring tension as follows.)
  Shift the hook position of the tension coil spring in the direction of Ⓐ.
- If the torque reading value is lower than the specification:
  (Increase the spring tension as follows.)
  Shift the hook position of the tension coil spring in the direction of Ⓑ.

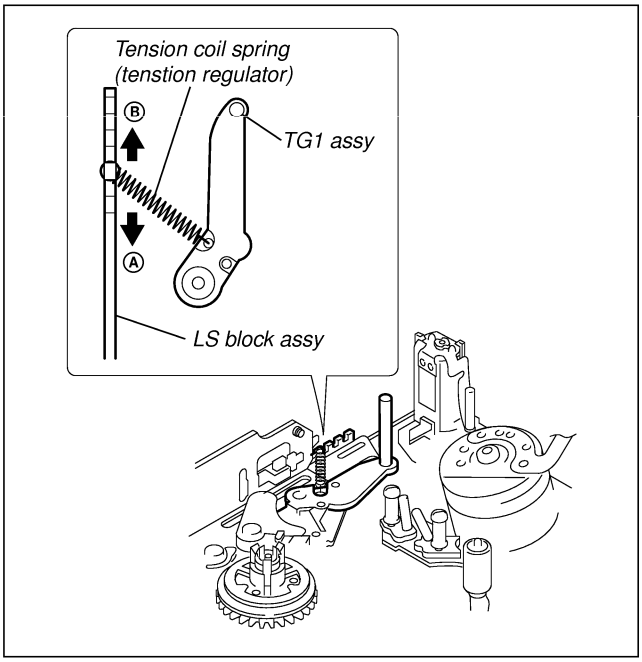


Fig. 3-8

3-8. Reel Torque Check

1. Check procedure

[FWD torque]

1) Install the Mini DV torque cassette (Ref. No. J-6).
2) Set the FWD mode. Confirm that the center of the T-reel table torque reading value is 0.54 to 1.32 (mN•m) (5.5 to 13.5 g•cm) and the fluctuation value is 0.39 to 0.40 (mN•m) (3.9 to 4.0 g•cm).

[RVS torque]

1) Install the Mini DV torque cassette (Ref. No. J-6).
2) Set the RVS mode (by using the EDIT SEARCH (–) button of the machine). Confirm that the center of the S-reel table torque reading value is 1.37 to 2.11 (mN•m) (14 to 21.5 g•cm) and the fluctuation value is 0.39 to 0.40 (mN•m) (3.9 to 4.0 g•cm).

If either of the above specifications is not satisfied, check whether the tension regulator band has any abnormality. If it has no abnormality, replace the corresponding reel table.

3-9. TG3 Guide Zenith Adjustment

1) Remove the drum referring to section 3-1. Install the dummy drum (Ref. No. J-9).
2) Install the TG36 gauge (Ref. No. J-10) on top of the dummy drum. Rotate the slant adjustment zenith screw until the TG3 guide and TG36 gauge (Ref. No. J-10) become parallel.
3) Remove all the jigs. Attach the original drum back in its original position referring to section 3-1.
4) Clean the TG3 and TG4 guides referring to section 2-2.
5) Perform the tape path adjustment. (Refer to section 4, "Tape Path Adjustment".)

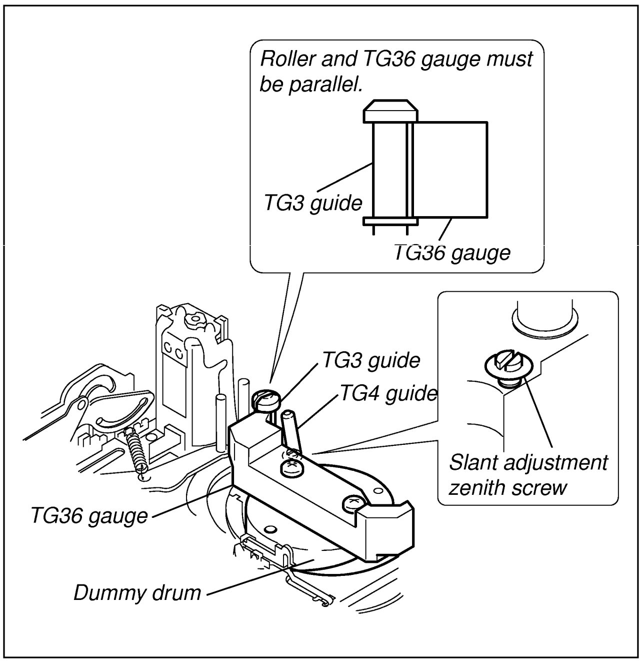

Roller and TG36 gauge must be parallel.
TG3 guide
TG36 gauge
TG3 guide
TG4 guide
Slant adjustment zenith screw
TG36 gauge
Dummy drum

Fig. 3-9

3-10. TG6 Guide Zenith Adjustment

1. Adjustment procedure

1) Remove the drum referring to section 3-1. Install the dummy drum (Ref. No. J-9).
2) Install the TG36 gauge (Ref. No. J-10) on top of the dummy drum. Adjust the slant of the TG6 guide.
3) Rotate the slant adjustment zenith screw until the TG6 guide and TG36 gauge (Ref. No. J-10) become parallel.
4) Remove all the jigs. Attach the original drum back in its original position referring to section 3-1.
5) Clean the TG5 and TG6 guides referring to section 2-2.
6) Perform tape path adjustment. (Refer to section 4, "Tape Path Adjustment".)

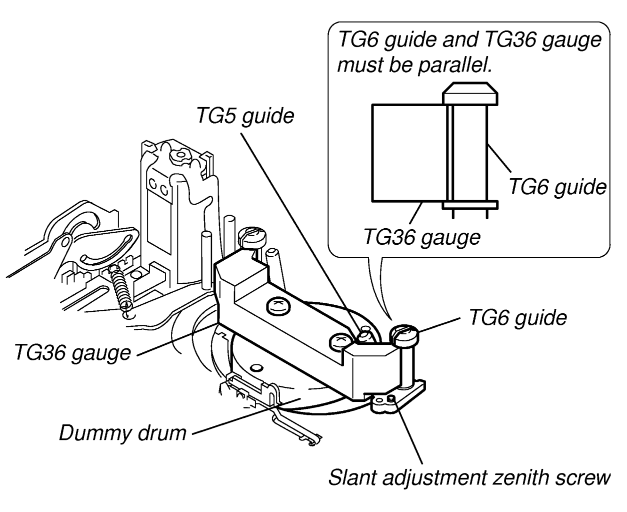

TG6 guide and TG36 gauge must be parallel.
TG5 guide
TG6 guide
TG36 gauge
TG6 guide
TG36 gauge
Dummy drum
Slant adjustment zenith screw

Fig. 3-10

3-11. LS Cam Plate Position Adjustment

1. Adjustment procedure

1) Loosen the LS cam fixing screw (M1.4 × 4) ① by 180 degrees.
2) Establish the STOP mode.
3) While pressing down the center of the LS chassis block assy with force of 100 to 200 gf (0.98 to 1.96 N), move the LS cam plate toward the S-reel side and tighten the LS cam plate fixing screw (M1.4 × 4) ① with force of 500 to 1000 gf (4.9 to 9.8 N).
   Tightening torque: 0.059 to 0.01 N•m (0.6 kg•cm).

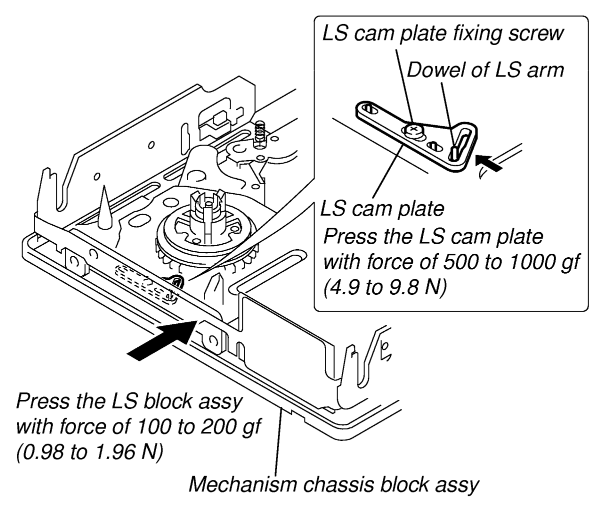

LS cam plate fixing screw
Dowel of LS arm
LS cam plate
Press the LS cam plate with force of 500 to 1000 gf (4.9 to 9.8 N)
Press the LS block assy with force of 100 to 200 gf (0.98 to 1.96 N)
Mechanism chassis block assy

Fig. 3-11

3-12. LS Chassis Block Assy, LS Guide Retainer

1. Removal procedure

1) Remove the FP-100 flexible wiring board from the FPC connector on the FP-102 flexible wiring board.
2) Remove the screw (M1.4 × 2.5) ②. Remove the FPC holder from DC motor (capstan).
3) Remove the two screws (M1.4 × 2) ①.
4) Remove the LS retainer in the direction of the arrow Ⓐ on the top.
5) Remove the E-type stop ring 1.5 ③.
6) Remove the LS chassis block assy in the direction of the arrow Ⓑ.

2. Attachment procedure

1) Confirm that the brake-T block assy has been moved in the counter-clockwise direction Ⓒ. While pressing the TG7 block in the direction of the arrow Ⓓ, insert the LS guide shafts T1 and T2 of the LS chassis block assy into the slots of the mechanism chassis with slanted angle.
2) While inserting the LS arm dowel into the LS cam plate groove, insert the LS guide shafts S1 and S2 into the slots of the LS chassis block assy as shown.
3) Insert the LS guide retainer from the top, align it with the LS guide shafts S1 and S2 and fix it with the screw (M1.4 × 2) ①. Tightening torque: 0.059 to 0.01 N•m (0.6 kg•cm).
4) Confirm that the LS guide retainer has play, is not lifted up, is not installed in opposite direction and has not been deformed.
5) Attach the E-type stop ring 1.5 ③ into the LS guide shaft T1.
6) Insert the FPC holder into DC motor (capstan) in the direction of the arrow Ⓔ and fix it with the screw (M1.4 × 2.5) ②.
7) Connect the flexible wiring board coming from the FP-100 flexible wiring board into the FPC connector.

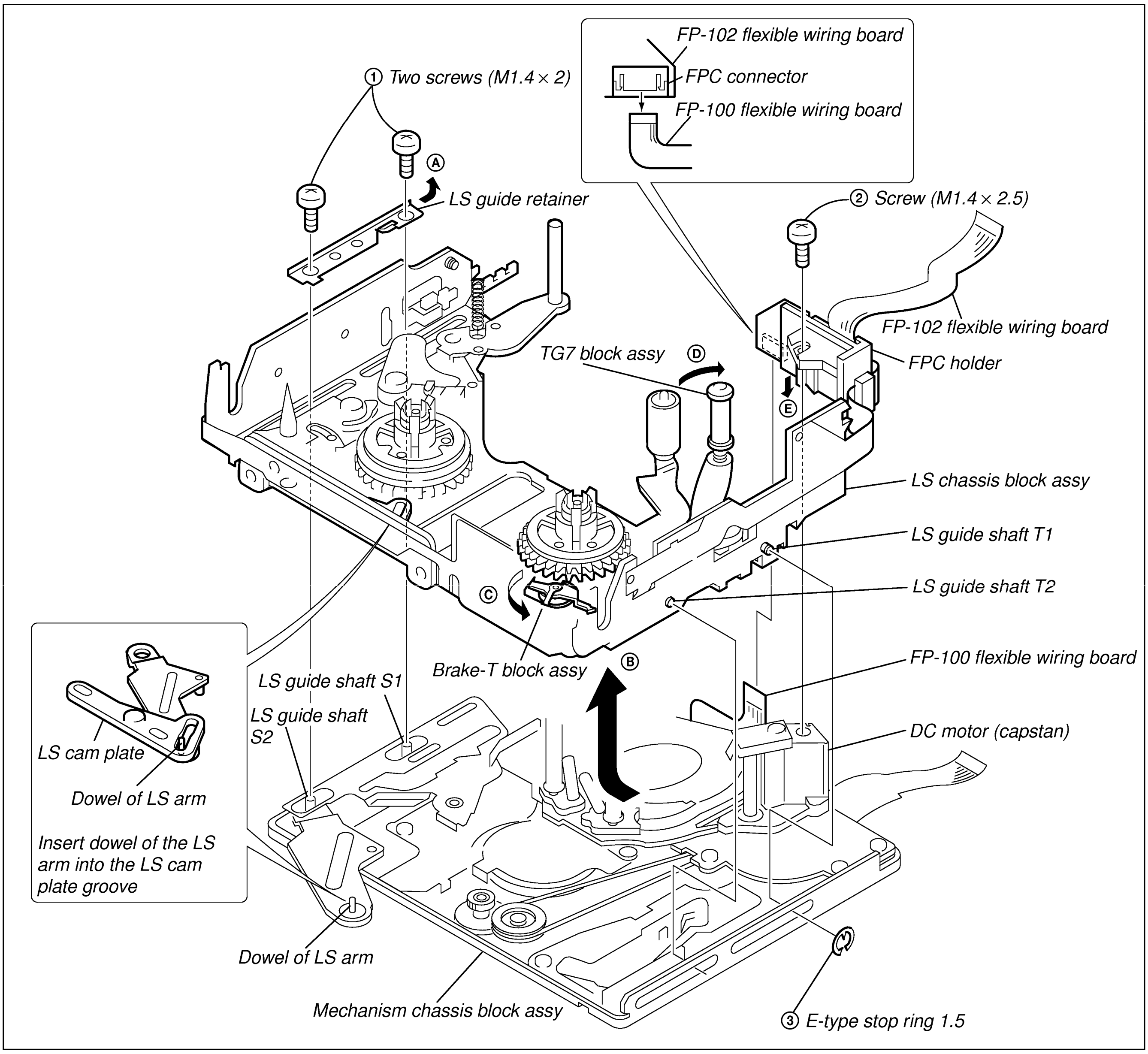

FP-102 flexible wiring board
FPC connector
FP-100 flexible wiring board
① Two screws (M1.4 × 2)
Ⓐ
LS guide retainer
② Screw (M1.4 × 2.5)
FP-102 flexible wiring board
FPC holder
TG7 block assy
Ⓓ
Ⓔ
LS chassis block assy
LS guide shaft T1
LS guide shaft T2
Ⓒ
FP-100 flexible wiring board
Brake-T block assy
Ⓑ
LS guide shaft S1
LS guide shaft S2
DC motor (capstan)
LS cam plate
Dowel of LS arm
Insert dowel of the LS arm into the LS cam plate groove
Dowel of LS arm
Mechanism chassis block assy
③ E-type stop ring 1.5

Fig. 3-12

3-13. LS Cam Plate, Tension Coil Spring (Brake-S), Brake-S, Torsion Coil Spring (Brake Arm), Cassette Position Set-S, Brake-S Driving Arm Assy

1. Removal procedure

1) Remove the screw (M1.4 × 1.4) ①.
2) Remove the LS cam plate.
3) Remove the tension coil spring (brake-S).
4) Remove the brake-S.
5) Remove the screw (M1.4 × 2) ②.
6) Remove the torsion coil spring (brake arm).
7) Remove the cassette position set-S from groove of the LS block assy in the direction of the arrow Ⓐ.
8) Remove the brake-S drive arm assy from groove of the LS block assy in the direction of the arrow Ⓑ.

2. Attachment procedure

1) Insert the brake-S drive arm assy under groove of the LS chassis block assy. Attach the brake-S drive arm assy to the brake-S arm shaft and to the brake-S pivot shaft.
2) Insert the cassette position set-S under the groove of the LS chassis block assy. Attach the cassette position set-S to the brake-S arm shaft.
3) Attach the torsion coil spring (brake arm).
4) Attach the screw (M1.4 × 2) ② to the brake-S arm shaft.
5) Attach the brake-S to the brake-S arm bearing and to the brake-S pivot shaft.
6) Hook the tension coil spring (brake-S) to the spring stay of the cassette position set-S and the spring stay of the brake-S.
7) Align the slot of the LS cam plate with the dowel. Move then in the direction toward the arrow Ⓒ and attach the screw (M1.4 × 1.4) ①.
8) Perform the LS cam plate position adjustment referring to section 3-11.

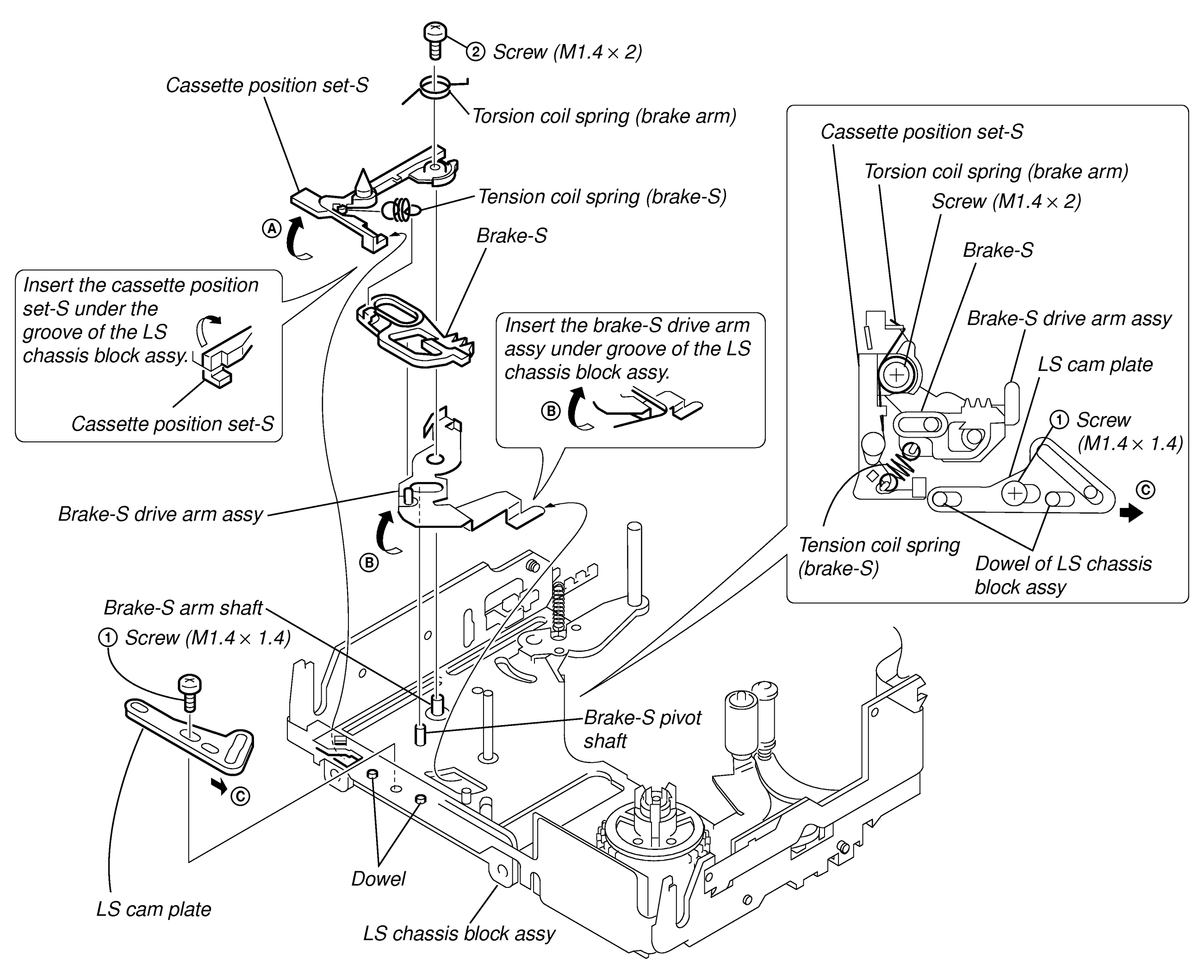

② Screw (M1.4 × 2)
Cassette position set-S
Torsion coil spring (brake arm)
Tension coil spring (brake-S)
Ⓐ
Brake-S
Insert the cassette position set-S under the groove of the LS chassis block assy.
Cassette position set-S
Insert the brake-S drive arm assy under groove of the LS chassis block assy.
Ⓑ
Brake-S drive arm assy
Ⓑ
Brake-S arm shaft
① Screw (M1.4 × 1.4)
Ⓒ
Brake-S pivot shaft
Dowel
LS cam plate
LS chassis block assy
Cassette position set-S
Torsion coil spring (brake arm)
Screw (M1.4 × 2)
Brake-S
Brake-S drive arm assy
LS cam plate
① Screw (M1.4 × 1.4)
Ⓒ
Tension coil spring (brake-S)
Dowel of LS chassis block assy

Fig. 3-13

3-14. TG7 Block Assy, Torsion Coil Spring (TG7 Return, Pinch Return), Pinch Arm Assy

1. Removal procedure

1) Remove the TG7 block assy in the direction of the arrow Ⓐ.
2) Remove the torsion coil spring (TG7 return) ①.
3) Remove the pinch arm assy in the direction of the arrow Ⓑ.
4) Remove the torsion coil spring (pinch roller return) ②.

2. Attachment procedure

1) Install the torsion coil spring (pinch roller return) ①. (Insert the 90-degree-bent portion of the torsion spring into the square hole of the LS chassis block assy.)
2) Attach the pinch arm assy to the pinch arm bearing.
3) Attach the torsion coil spring (TG7 return) ①.
4) While aligning the TG7 block assy with the groove of the LS chassis block assy, install the TG7 block assy into the TG7 block assy bearing.

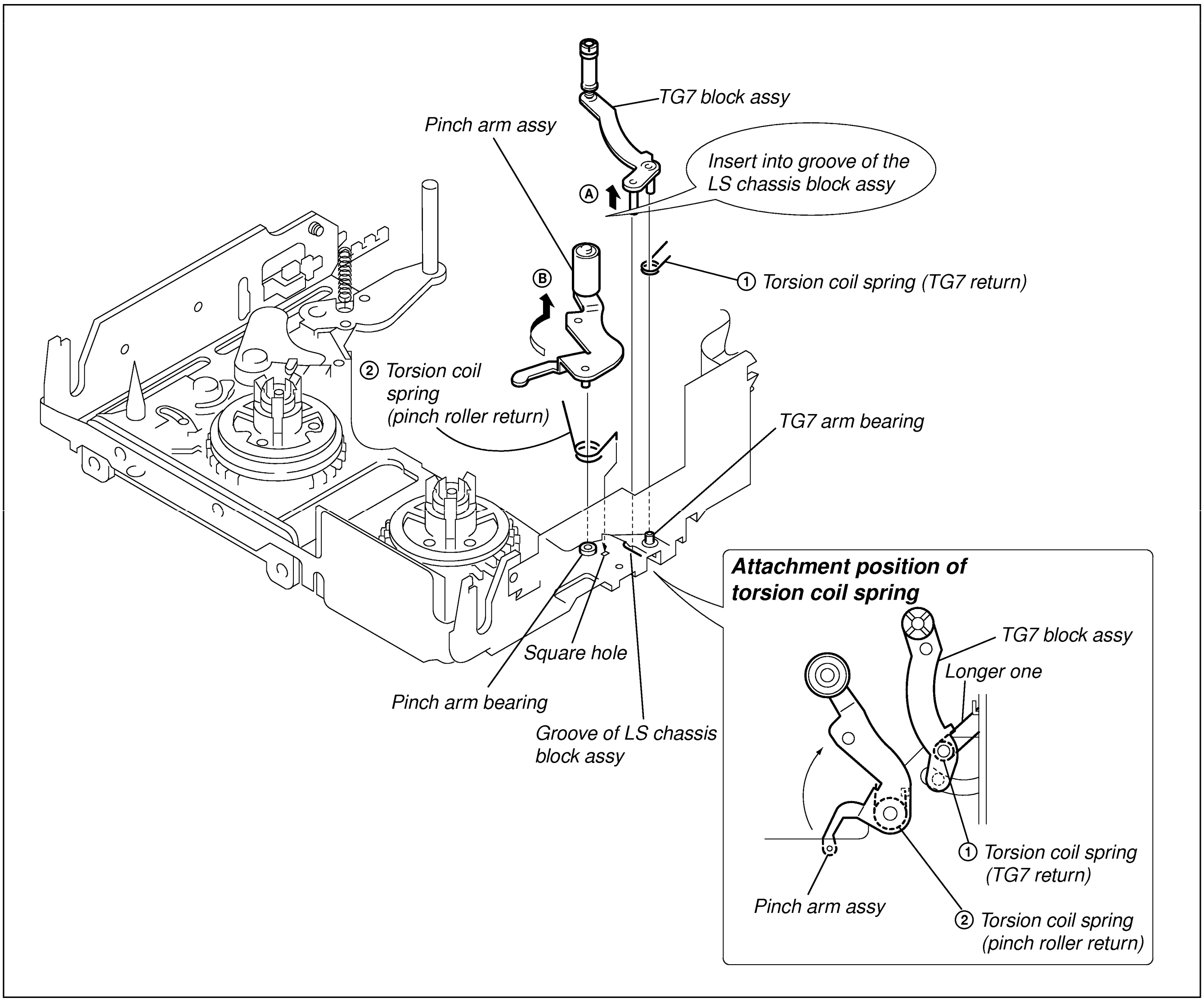
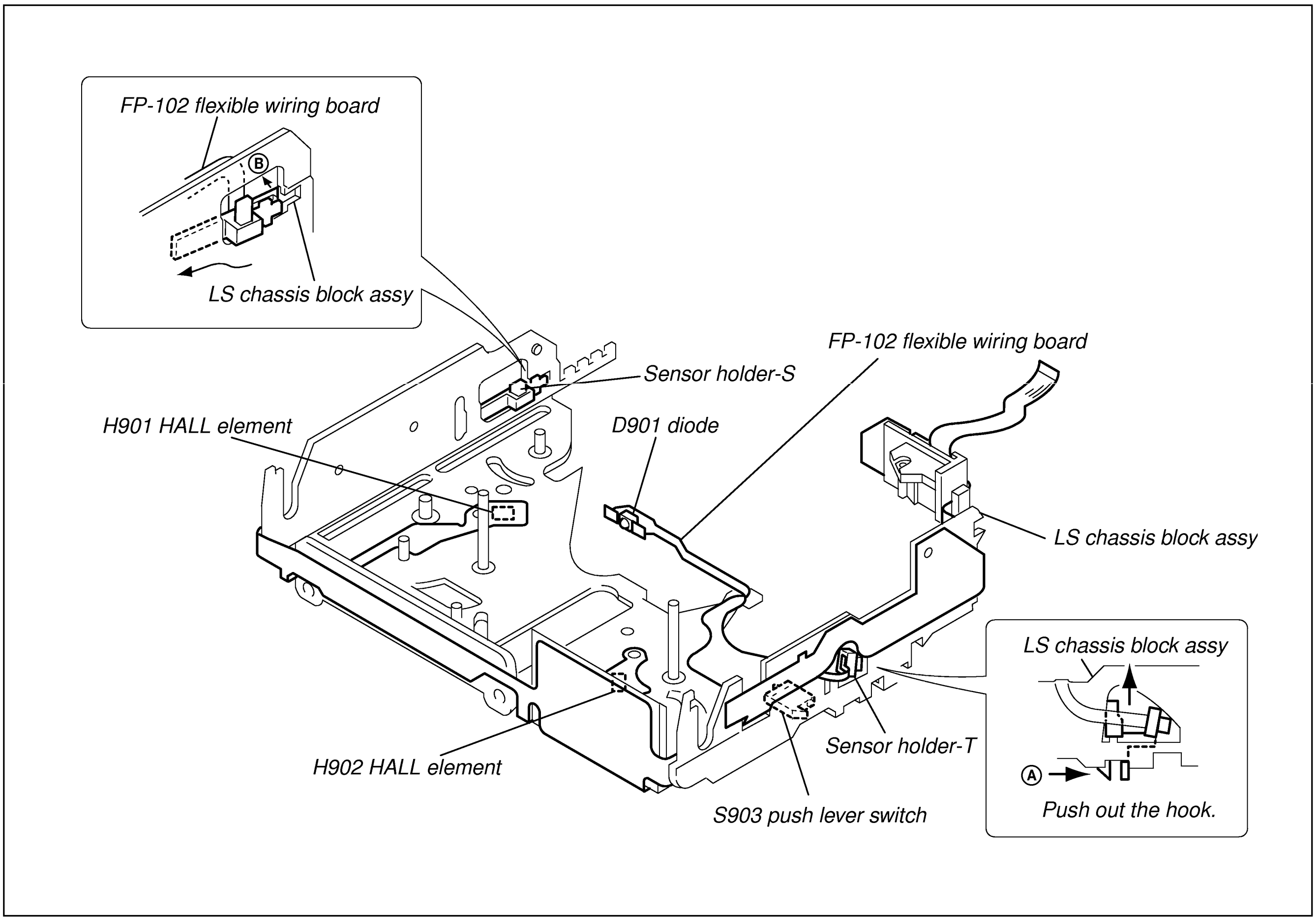

TG7 block assy
Pinch arm assy
Insert into groove of the LS chassis block assy
Ⓐ
Ⓑ
① Torsion coil spring (TG7 return)
② Torsion coil spring (pinch roller return)
TG7 arm bearing
Square hole
Pinch arm bearing
Groove of LS chassis block assy
Attachment position of torsion coil spring
TG7 block assy
Longer one
① Torsion coil spring (TG7 return)
Pinch arm assy
② Torsion coil spring (pinch roller return)

Fig. 3-14

3-15. Layout Diagram of FP-102 Flexible Wiring Board

1. Removal procedure

1) Remove the sensor holder-T from groove of the LS chassis block assy in the direction of the arrow Ⓐ.
2) Remove the cassette holder-S by pushing out the hook under the LS chassis block assy towards the direction of the arrow Ⓑ.



FP-102 flexible wiring board
Ⓑ
LS chassis block assy
Sensor holder-S
FP-102 flexible wiring board
H901 HALL element
D901 diode
LS chassis block assy
LS chassis block assy
Ⓐ
Push out the hook.
Sensor holder-T
H902 HALL element
S903 push lever switch

Fig. 3-15

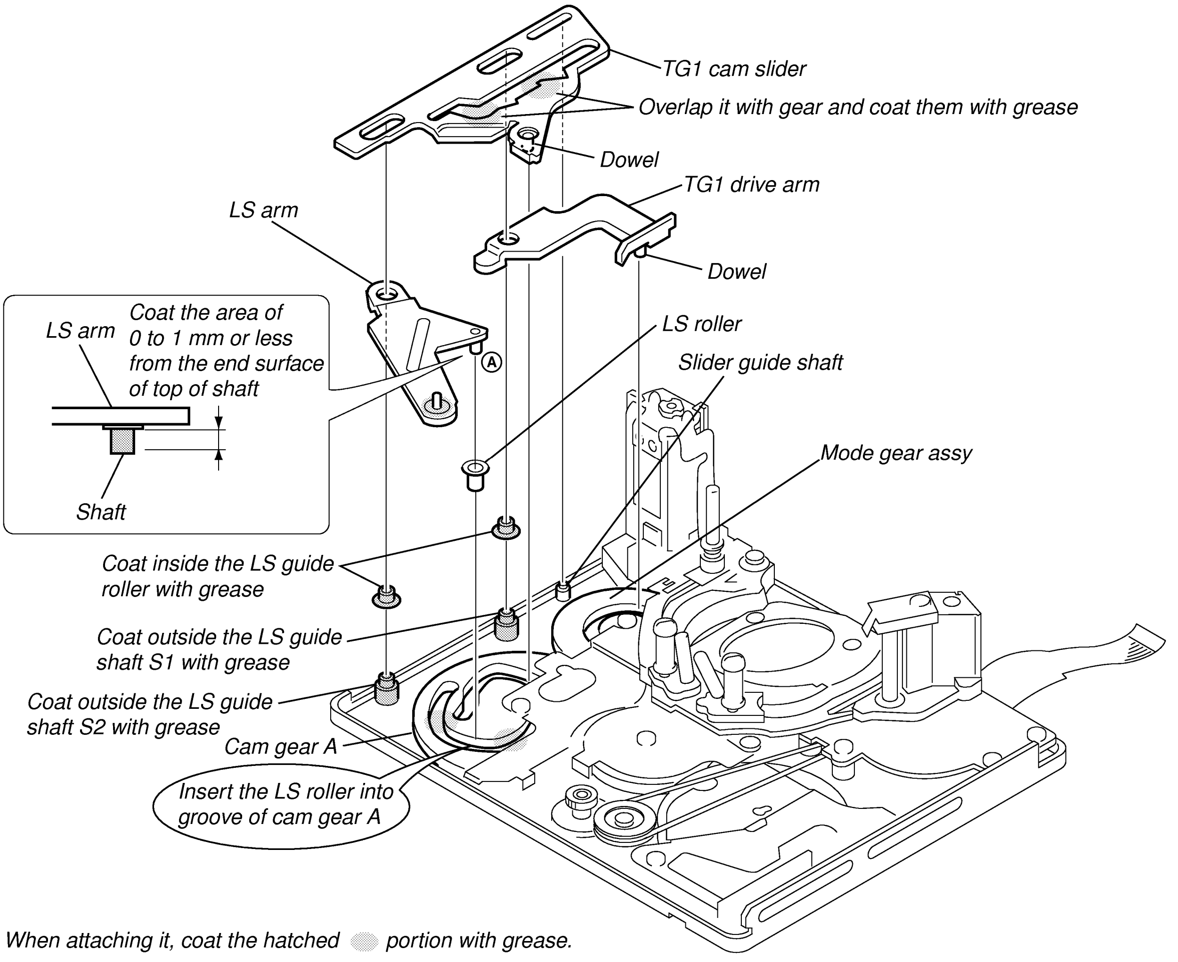
3-16. TG1 Cam Slider, LS Arm, LS Roller, Mode Gear Assy, LS Guide Roller

1. Removal procedure

1) Remove the TG1 cam slider.
2) Remove the LS arm. (At this moment, be careful that the LS roller can come out of cam gear A groove.)
3) Remove the LS roller from the LS arm.
4) Remove the LS guide roller.

2. Attachment procedure

1) Coat inside the LS guide roller with grease (1/4 drop of grease) and insert it into the LS guide shafts S1 and S2.
2) Coat outside the LS guide roller with grease (1/2 drop of grease) at the two points as shown.
3) While aligning dowel of the TG1 drive arm with groove of the mode gear assy, insert the TG1 drive arm into the LS guide shaft S1.
4) Coat the portion Ⓐ of the LS arm with grease (1/4 drop of grease) and insert the LS guide roller.
5) Coat both sides of the groove of the cam gear A with grease (1/2 drop of grease). Insert the LS guide roller into groove of the cam gear A and insert the LS arm into the LS guide shaft S2.
6) Insert the TG1 cam slider into the three positions of the LS guide shaft S1, S2 and slider guide shaft. Insert dowel of the TG1 cam slider into groove of the cam gear A.
7) Be careful that greasing points are correct, amount of grease is correct and the LS arm and the TG1 drive arm are not floating.


TG1 cam slider
Overlap it with gear and coat them with grease
Dowel
TG1 drive arm
LS arm
Dowel
LS arm
Coat the area of 0 to 1 mm or less from the end surface of top of shaft
Shaft
Ⓐ
LS roller
Slider guide shaft
Mode gear assy
Coat inside the LS guide roller with grease
Coat outside the LS guide shaft S1 with grease
Coat outside the LS guide shaft S2 with grease
Cam gear A
Insert the LS roller into groove of cam gear A

When attaching it, coat the hatched ▨ portion with grease.

Fig. 3-16

3-17. Guide Rail

1. Removal procedure

1) Remove the screw (M1.4 × 2) ①.
2) When removing the guide rail, be careful that claws of the drum base block assy are fully released. Remove the S-side rail, T-side rail and rail of DC motor side in this order.

2. Attachment procedure

1) Engage the claws of the guide rails with the claws of the drum base block assy starting engaging the claw from the T-side rail and S-side rail.
   Note: There must no deformation of guide rail, claws must not be broken, claws must not override, claws must not become white, not be stained or have no play.
2) Fix the guide rail with the screw (M1.4 × 2) ①.
   Tightening torque: 0.059 ± 0.01 N•m (0.6 kg•cm)

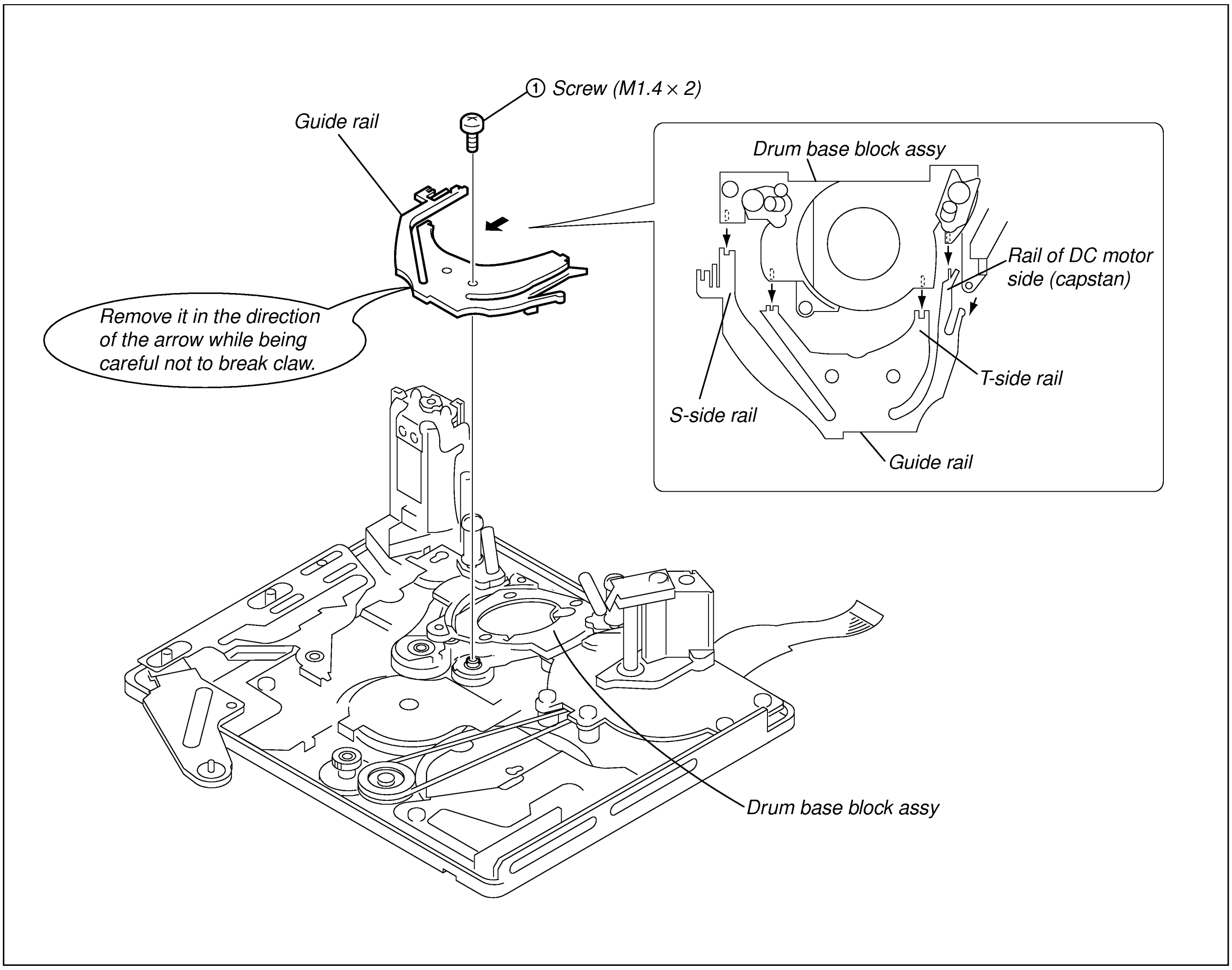

① Screw (M1.4 × 2)
Guide rail
Remove it in the direction of the arrow while being careful not to break claw.
Drum base block assy
Rail of DC motor side (capstan)
T-side rail
S-side rail
Guide rail
Drum base block assy

Fig. 3-17

3-18. Gear Cover B, GL Driving Gear

1. Removal procedure

1) Remove the screw (M1.4 × 2) ①.
2) Remove the gear cover B in the direction of the arrow Ⓐ.
3) Remove the GL drive gear.

2. Attachment procedure

1) Coat the cam gear A and the GL drive gear with grease (1/2 drop). (Refer to Fig. 2.)
2) Refer to Fig. 1. While adjusting phase of the GL drive gear as shown, insert the GL drive gear into the GL drive shaft. (Insert it while moving the GL drive gear in the clockwise direction.)
3) Insert the two claws of the gear cover B into the square holes of mechanism chassis.
4) Fix the GL drive shaft with the screw (M1.4 × 2) ①. Be sure that the gear cover B must not have any play.
Tightening torque: 0.059 ± 0.01 N•m (0.6 kg•cm)

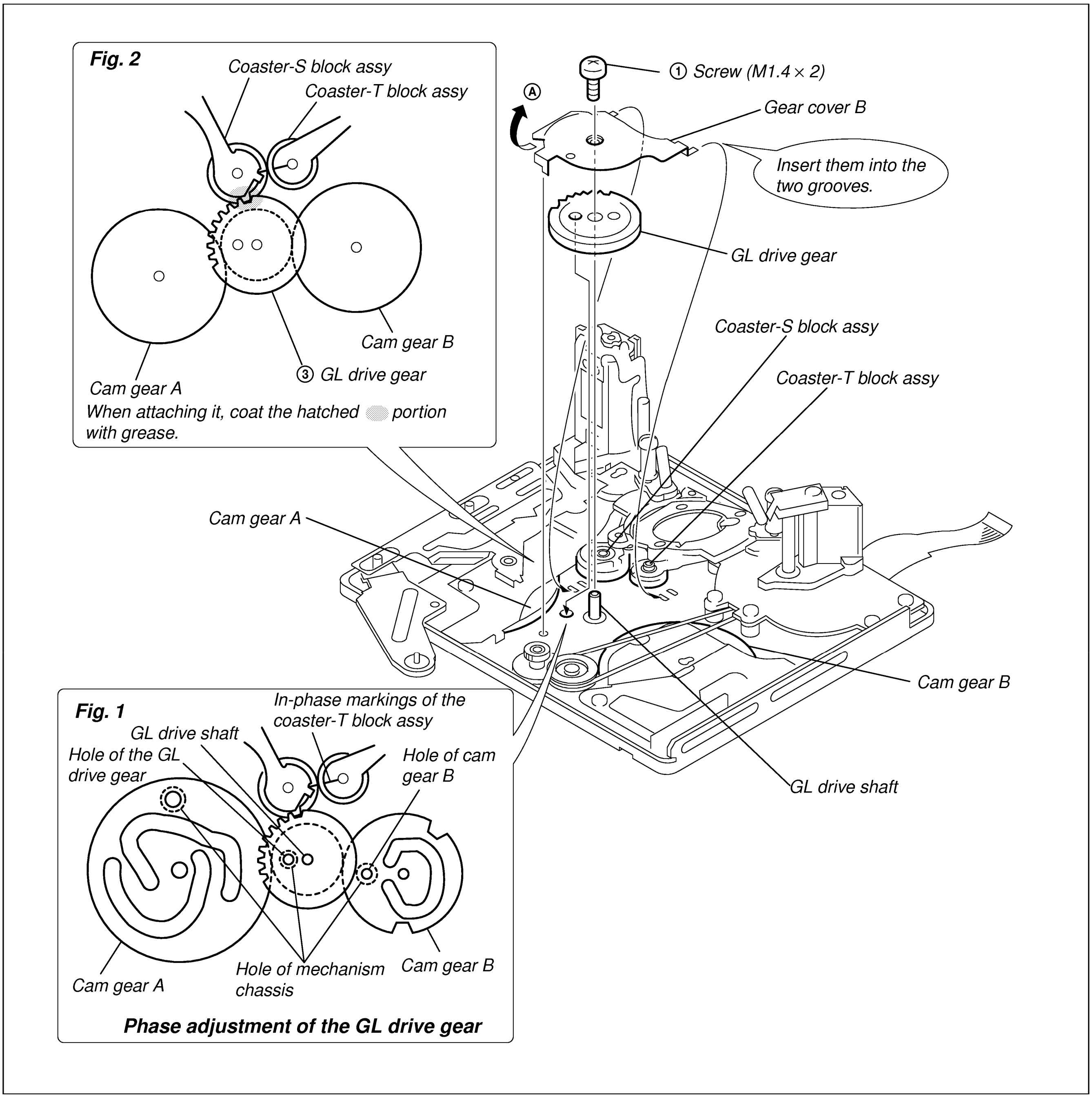


Fig. 2
Coaster-S block assy
Coaster-T block assy
Cam gear B
③ GL drive gear
Cam gear A
When attaching it, coat the hatched ▒ portion with grease.
① Screw (M1.4 × 2)
Ⓐ
Gear cover B
Insert them into the two grooves.
GL drive gear
Coaster-S block assy
Coaster-T block assy
Cam gear A
Cam gear B
GL drive shaft
Fig. 1
In-phase markings of the coaster-T block assy
GL drive shaft
Hole of the GL drive gear
Hole of cam gear B
Cam gear A
Hole of mechanism chassis
Cam gear B
Phase adjustment of the GL drive gear

Fig. 3-18

3-19. Drum Base Block Assy, Coaster-S Block Assy, Coaster-T Block Assy

1. Removal procedure

1) Remove three screws (M1.4 × 2.5).
2) Move the coaster-S block assy and coaster-T block assy out from the drum base groove in the direction of the arrow Ⓐ.
3) Remove the drum base block assy.
4) Remove the coaster-S block assy from the GL gear shaft-S.
5) Remove the coaster-T block assy from the GL gear shaft-T.

2. Attachment procedure

1) Insert a coaster-S block assy and coaster-T block assy into the drum base groove.
2) Place a drum base block assy on top of the mechanism chassis assy. Insert a coaster-T block assy into the GL gear shaft-T.
3) Insert a coaster-S block assy in the oblique direction. While adjusting phase so that the spring of coaster-S block assy agrees with the GL gear lever marking of the coaster-T block assy, insert a coaster-S block assy into the GL gear shaft-S.
   Note:
   - There must be no phase difference.
   - Do not remove coaster-S block assy and coaster-T block assy from the drum base block assy.
4) Determine the exact position of the drum base block assy that has been tentatively placed, on the mechanism chassis assy. Tighten the screws at Ⓐ, Ⓑ and Ⓒ in this order.
   Tightening torque: 0.059 ± 0.01 N•m (0.6 kg•cm)

Note: Be careful that the position setting boss of drum base block assy does not override on the mechanism chassis.

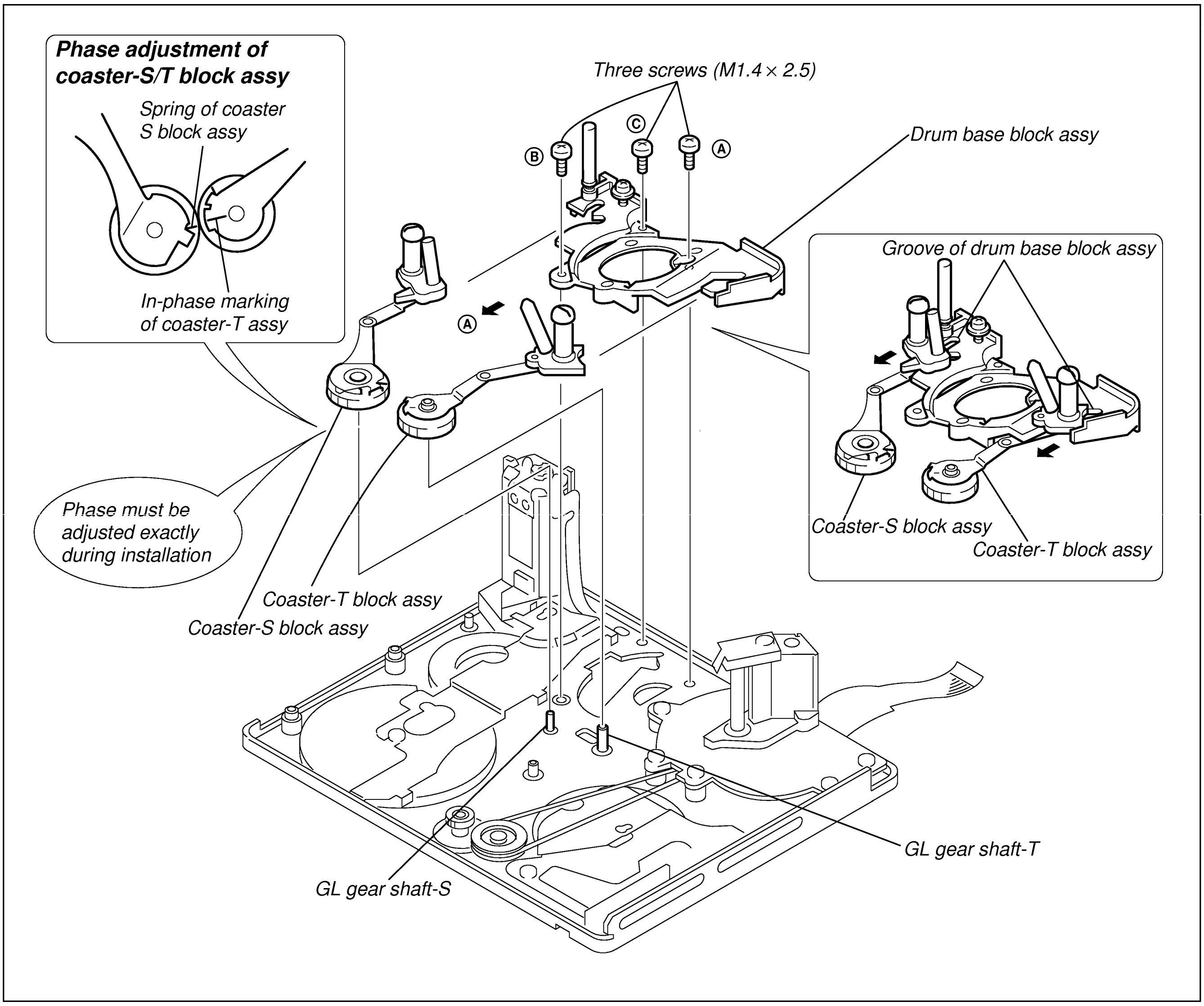

Phase adjustment of coaster-S/T block assy
Spring of coaster S block assy
In-phase marking of coaster-T assy
Three screws (M1.4 × 2.5)
Ⓒ
Ⓑ
Ⓐ
Drum base block assy
Groove of drum base block assy
Ⓐ
Phase must be adjusted exactly during installation
Coaster-S block assy
Coaster-T block assy
Coaster-T block assy
Coaster-S block assy
GL gear shaft-T
GL gear shaft-S

Fig. 3-19

3-20. DC Motor (Capstan), Conversion Gear, Relay Gear

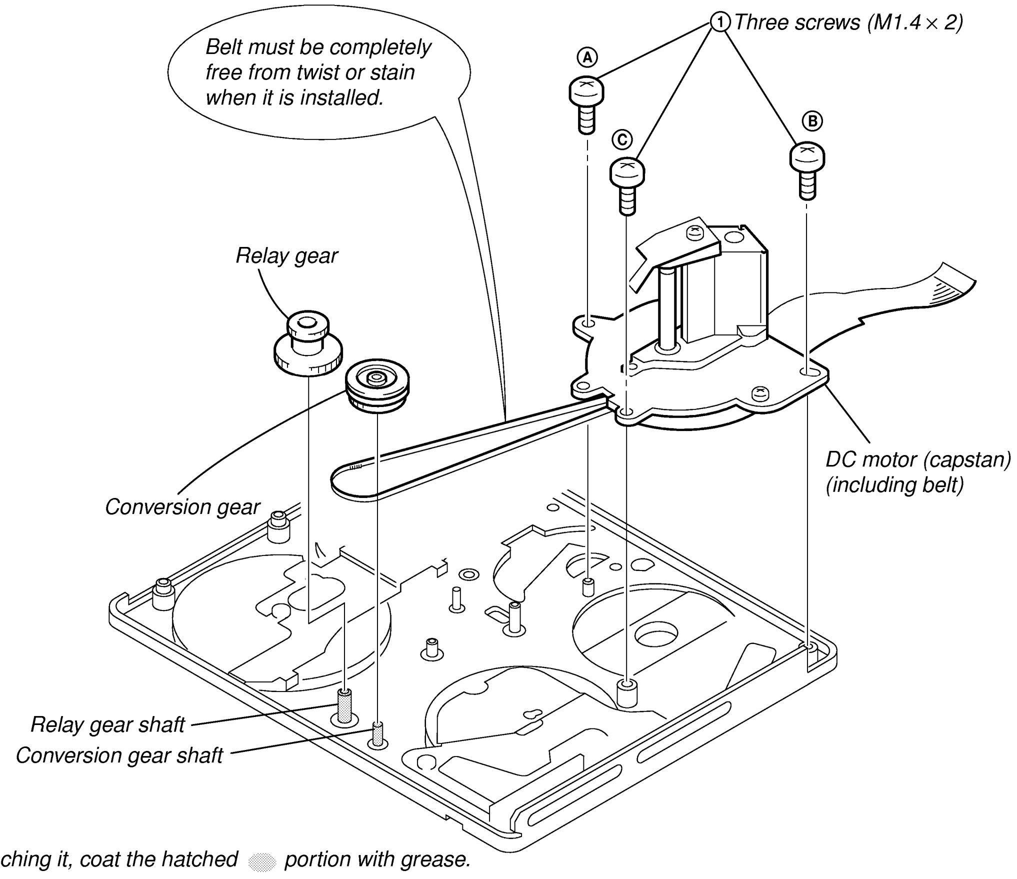
1. Removal procedure

1) Remove the three screws (M1.4 × 2) ①.
2) Remove DC motor (capstan). Remove belt from the pulley of conversion gear.
3) Remove conversion gear.
4) Remove relay gear.

2. Attachment procedure

1) Coat relay gear shaft and conversion gear shaft with grease (1/8 drop). (Amount of grease must be strictly controlled.)
2) With the larger gear of the relay gear positioned down, attach the relay gear to the relay gear shaft.
3) With the pulley side of the conversion gear positioned up, engage the conversion gear teeth with the relay gear teeth, and install them.
4) Before installing the DC motor (capstan (including belt)), check that belt is not twisted. Hook a belt on the pulley block of conversion gear. Align three shafts with corresponding holes. At this moment, confirm that belt does not override on the shaft.
5) Install DC motor (capstan) with three screws (M1.4 × 2) ① in the order of Ⓐ, Ⓑ and Ⓒ.
   Ⓐ, Ⓑ, Ⓒ tightening torque
   Ⓐ tightening torque: 0.059 ± 0.01 N•m (0.6 kg•cm)
   Ⓑ and Ⓒ tightening torque: 0.038 ± 0.01 N•m (0.4 kg•cm)

Note: Be careful that gears and belts are not damaged or dust is not attached. Be careful also not to splash grease.


Belt must be completely free from twist or stain when it is installed.
① Three screws (M1.4 × 2)
Ⓐ
Ⓒ
Ⓑ
Relay gear
Conversion gear
DC motor (capstan) (including belt)
Relay gear shaft
Conversion gear shaft

When attaching it, coat the hatched ▨ portion with grease.

Fig. 3-20

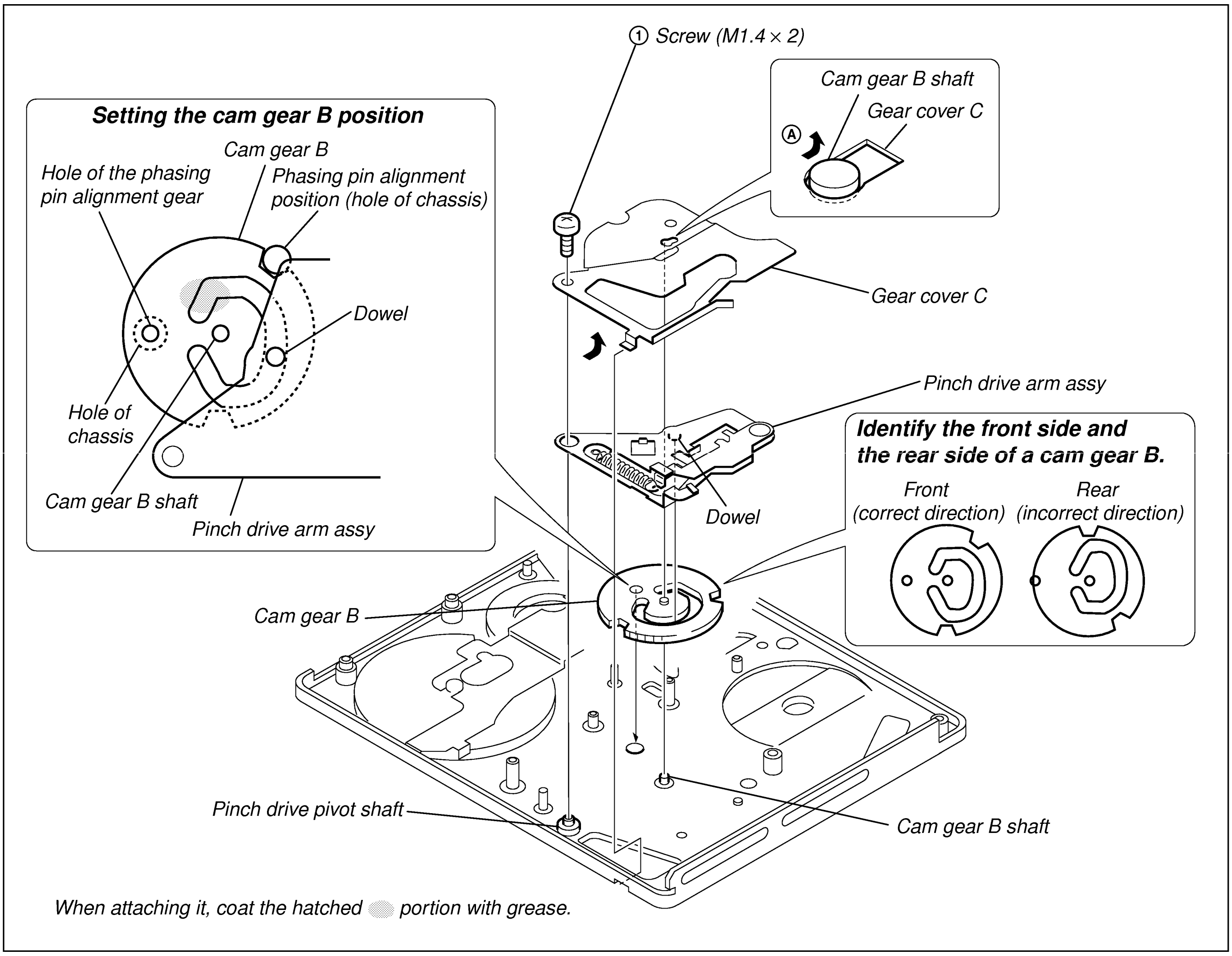
3-21. Gear Cover C, Pinch Driving Arm Assy, Cam Gear B

1. Removal procedure

1) Remove the screw (M1.4 × 2) ①.
2) Move the key slot of the gear cover C in the direction of the arrow Ⓐ and remove the gear cover C.
3) Remove the pinch drive arm assy.
4) Remove the cam gear B.

2. Attachment procedure

1) Identify the front side and the rear side of a cam gear B. Align the cam gear B shaft, the gear phasing hole and the LS chassis hole. Then attach the cam bear B. coat groove of a cam gear with grease (1/2 drop).
2) Align the pinch drive arm assy with the pinch drive pivot shaft. While aligning dowel with the cam groove of the cam gear B, insert the pinch drive arm assy.
3) Insert the "one-step bent portion" of gear cover C into notch of the chassis, insert the cam gear B shaft into the key hole of the gear cover. C.
4) Insert the gear cover C into the pinch drive pivot shaft and fix it with the screw (M1.4 × 2) ①. After tightening the screw (M1.4 × 2) ①, move the gear cover C in order to confirm that there is a little play.
   Tightening torque: 0.059 ± 0.01 N•m (0.6 kg•cm)


① Screw (M1.4 × 2)
Cam gear B shaft
Gear cover C
Ⓐ
Setting the cam gear B position
Cam gear B
Hole of the phasing pin alignment gear
Phasing pin alignment position (hole of chassis)
Dowel
Hole of chassis
Cam gear B shaft
Pinch drive arm assy
Gear cover C
Pinch drive arm assy
Identify the front side and the rear side of a cam gear B.
Front (correct direction)
Rear (incorrect direction)
Dowel
Cam gear B
Pinch drive pivot shaft
Cam gear B shaft

When attaching it, coat the hatched ▨ portion with grease.

Fig. 3-21

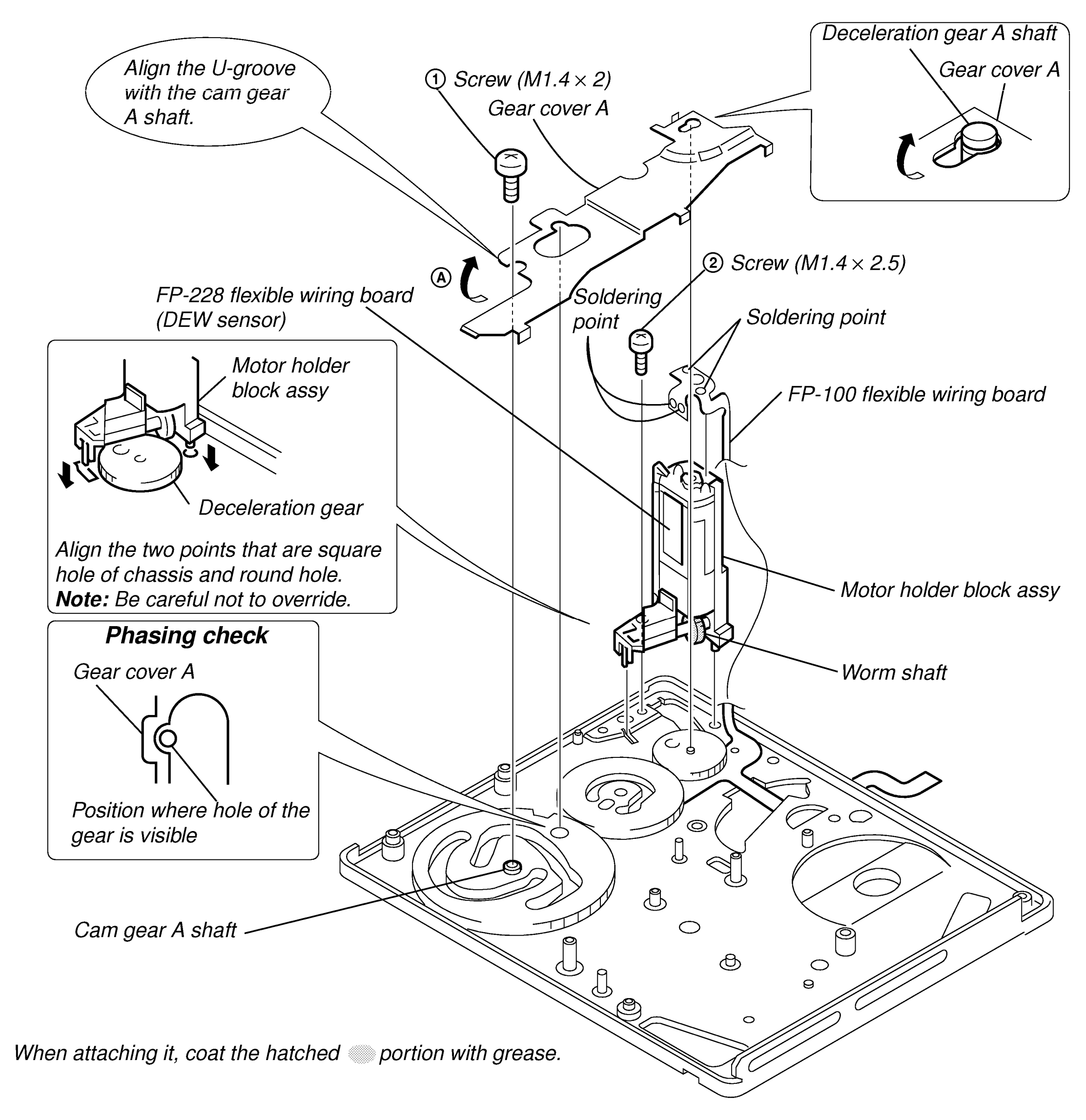
3-22. Gear Cover A, FP-100 Flexible Wiring Board

1. Removal procedure

1) Remove the screw (M1.4 × 2) ①.
2) Remove the gear cover A in the direction of the arrow Ⓐ.
3) Remove the screw (M1.4 × 2.5) ②.
4) Remove soldering from the motor terminal and FP-228 flexible wiring board (DEW sensor) that are used to connect the FP-100 flexible wiring board with the motor holder block assy.
5) Remove the motor holder block assy.

2. Attachment procedure

1) Align the motor holder block assy position with the chassis square hole and round hole. The press the motor holder block assy with finger.
   Note: Coat the worm shaft with grease (1/2 size of a rice gain).
2) Fix the motor holder block assy with the screw (M1.4 × 2.5) ②.
   Tightening torque: 0.059 ± 0.01 N•m (0.6 kg•cm)
3) Install the gear cover A as follows: Hook the shaft with the key slot and align the U-groove with the cam gear A shaft. Confirm at this time that there is a play.
4) Attach the gear cover A to the cam gear A shaft and fix them with the screw (M1.4 × 2) ①.
   Tightening torque: 0.059 ± 0.01 N•m (0.6 kg•cm)
5) Connect the FP-100 flexible wiring board with the motor holder block assy (motor terminal and FP-228 flexible wiring board (DEW sensor)) by soldering.
   Note: Do not touch the DEW sensor.


Deceleration gear A shaft
Gear cover A
Align the U-groove with the cam gear A shaft.
① Screw (M1.4 × 2)
Gear cover A
Ⓐ
② Screw (M1.4 × 2.5)
FP-228 flexible wiring board (DEW sensor)
Soldering point
Soldering point
FP-100 flexible wiring board
Motor holder block assy
Deceleration gear
Align the two points that are square hole of chassis and round hole.
Note: Be careful not to override.
Phasing check
Gear cover A
Position where hole of the gear is visible
Motor holder block assy
Worm shaft
Cam gear A shaft

When attaching it, coat the hatched ▨ portion with grease.

Fig. 3-22

3-23. Deceleration Gear, Mode Gear Assy, FP-100 Flexible Wiring Board, Cam Gear A

1. Removal procedure

1) Remove the deceleration gear.
2) Remove the screw (M1.4 × 2) ①.
3) Remove the cam gear A.
4) Remove the mode gear assy.
5) Remove the FP-100 flexible wiring board.

Note 1: Do not touch the foil pattern area of the FP-100 flexible wiring board. Any foreign materials must not be adhered.
Note 2: Do not remove the mode gear assy unnecessarily.

2. Attachment procedure

1) Install the FP-100 flexible wiring board to the mechanism chassis. Confirm that flexible wring board is not stained, broken, bent or damaged.
2) Coat the entire contact points of the mode pattern area of the FP-100 flexible wiring board with the contact-point grease (equivalent to 1.5 drops). (Any foreign materials must not be mixed in the contact-point grease.)
3) Attach the mode gear assy to the mode gear shaft.
4) Install the deceleration gear as follows: Position the deceleration gear with its small gear down, and engage the small gear tooth with the mode gear tooth. Rotate the gear tooth until the phasing marking of the mode gear assy arrives at the phasing position of the cam gear A.
5) Identify the front and rear sides of the cam gear A. Confirm that the marking of the cam gear A and that of the mode gear assy agree.
6) Attach the screw (M1.4 × 2) ① of the mode gear assy.
Tightening torque: 0.059 ± 0.01 N•m (0.6 kg•cm)
7) Connect the FP-100 flexible wiring board to the motor holder block assy by soldering in accordance with section "3-22 [2. Attachment procedure] step 7.

Note 1: If the FP-100 flexible wiring board is removed, replace it with a new FP-100 board, and do not use the removed FP-100 flexible wiring board.
Note 2: Cautions when attaching the FP-100 flexible wiring board:
① It must not override on the mode gear shaft.
② It must be aligned with the position setting hole.
③ It must no float, must not have stain or must not be broken.
④ Never touch the foil pattern area with hand.

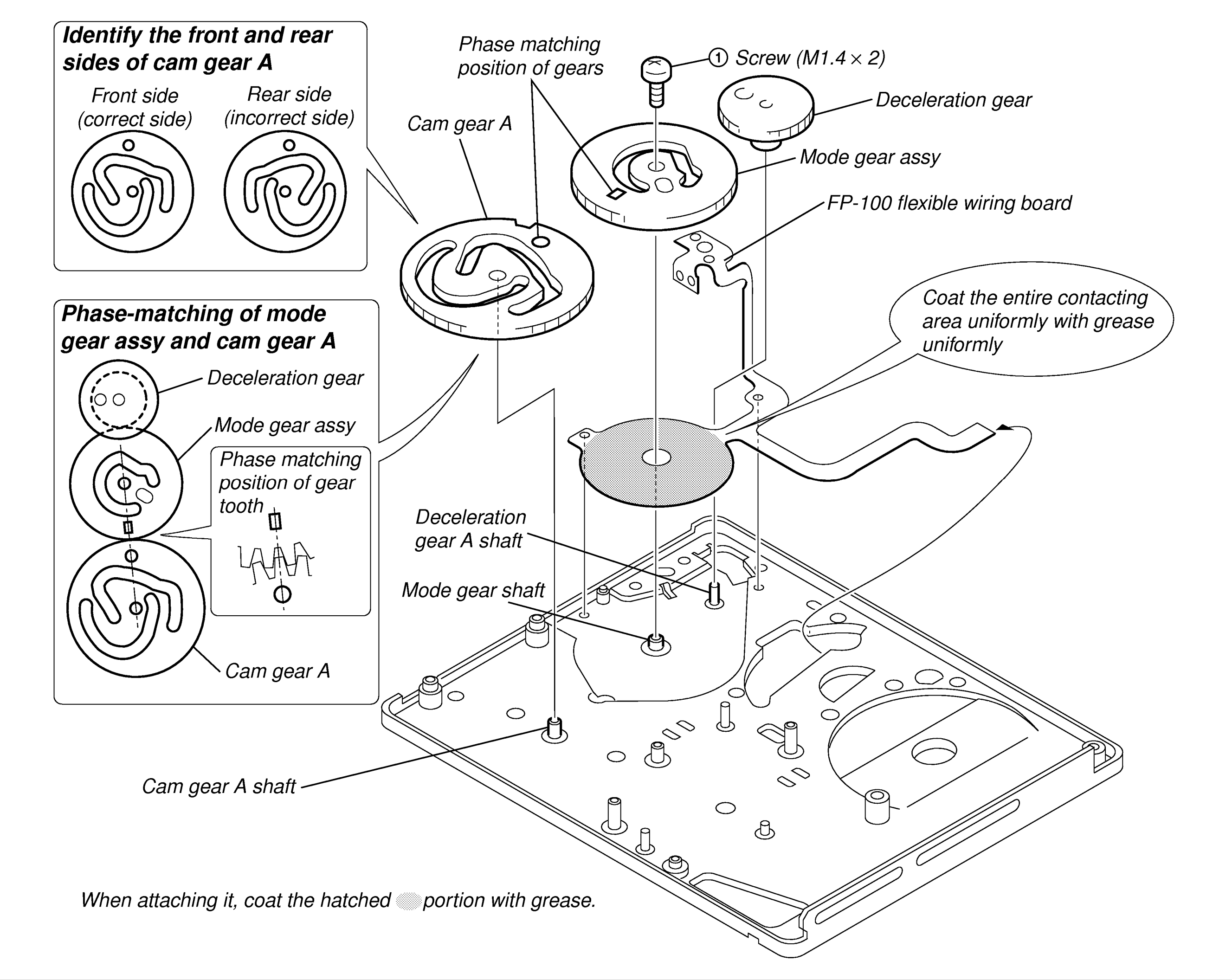

Identify the front and rear sides of cam gear A
Front side (correct side)
Rear side (incorrect side)
Phase-matching of mode gear assy and cam gear A
Deceleration gear
Mode gear assy
Phase matching position of gear tooth
Cam gear A
Phase matching position of gears
Cam gear A
① Screw (M1.4 × 2)
Deceleration gear
Mode gear assy
FP-100 flexible wiring board
Coat the entire contacting area uniformly with grease uniformly
Deceleration gear A shaft
Mode gear shaft
Cam gear A shaft
When attaching it, coat the hatched ▨ portion with grease.

Fig. 3-23

4. Tape Path Adjustment

4-1. Adjustment Preparation

1) Clean the tape running surface (tape guides, drum, capstan, pinch roller) referring to Service Manual.
2) Connect adjustment remote commander (Ref. No. J-13) to the LANC terminal of the machine. Set the HOLD switch to ON.
3) Connect an oscilloscope to the VC-240 board CN009 via the CPC-8 jig (J-082-388-A). (in the case of DCR-TRV20).
   Scope channel 1: VC-240 board CN009 pin ⑳ (Note)
   External trigger: VC-240 board CN009 pin ⑰
   Note: Connect CN009 pin ⑳ and pin ⑲ (GND) with 75 Ω resistor (1-247-804-11).
4) Play the tracking alignment tape (XH2-1)(Ref. No. J-5) back.
5) Select page: 3, address: 33 and data: 08. (Note)
6) Select page: 3, address: 26 and data: 31. (Note)
7) Confirm that RF waveform on scope is flat in both entrance side and exit side. (Refer to Fig. 4-2 Ⓐ).
   If RF waveform is not flat in entrance side and exit side, perform the adjustment of section 4-2. and later. (Refer to Fig. 4-2 Ⓑ and Ⓒ).
8) When the required conditions of step 7) are satisfied and adjustment/check are complete, perform [Required work upon completion of adjustment] as described below.

[Required work upon completion of adjustment]

1) Connect adjustment remote commander (Ref. No. J-13) to the LANC terminal of the machine. Set the HOLD switch to ON.
2) Select page: 3, address: 26 and data: 00. (Note)
3) Select page: 3, address: 33 and data: 00. (Note)

Note: Page and address numbers differ depending on each model. Please refer to Service Manual of respective models. Those of DCR-TRV20 are described above.

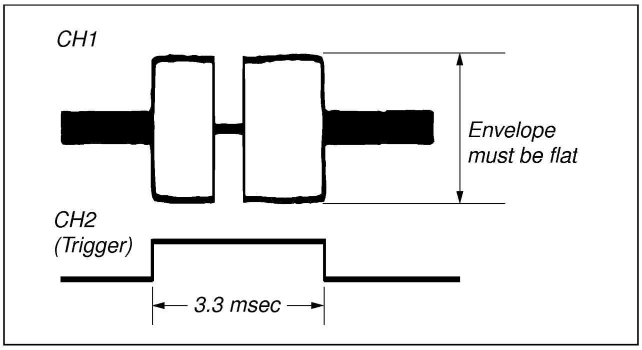

CH1
Envelope must be flat
CH2 (Trigger)
3.3 msec

Fig. 4-1

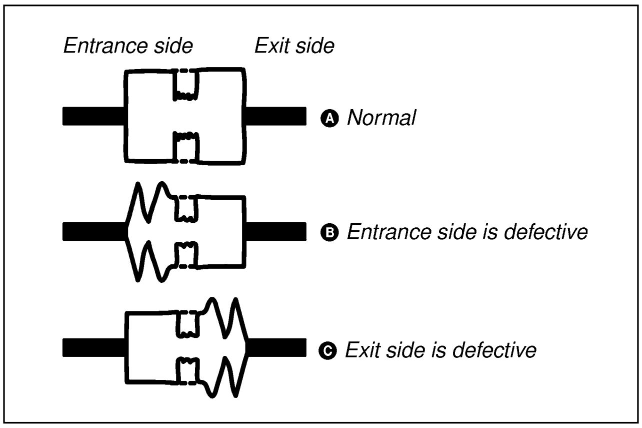

Entrance side
Exit side
Ⓐ Normal
Ⓑ Entrance side is defective
Ⓒ Exit side is defective

Fig. 4-2

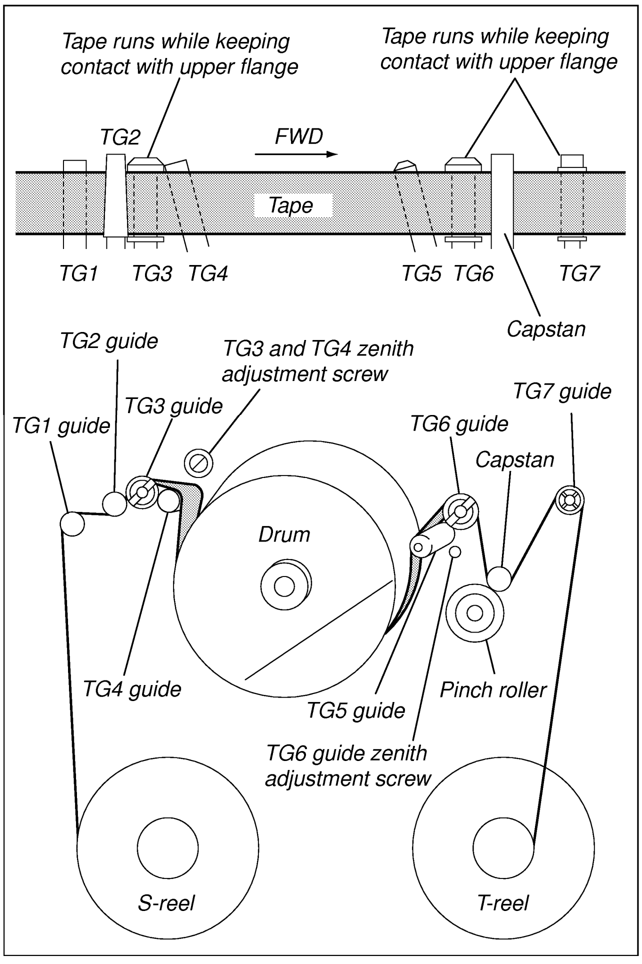

Tape runs while keeping contact with upper flange
Tape runs while keeping contact with upper flange
TG2
FWD
Tape
TG1
TG3
TG4
TG5
TG6
TG7
Capstan
TG2 guide
TG3 and TG4 zenith adjustment screw
TG7 guide
TG3 guide
TG1 guide
TG6 guide
Capstan
Drum
TG4 guide
TG5 guide
Pinch roller
TG6 guide zenith adjustment screw
S-reel
T-reel

Fig. 4-3

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4-2. Tracking Adjustment

1) Play the tracking alignment tape (XH2-1) (Ref. No. J-5) back.
2) Adjust TG3 guide until the envelope of entrance side waveform becomes flat.
3) Adjust TG6 guide until the envelope of exit side waveform becomes flat.

Note: Do not touch or adjust TG3 and TG4 guide zenith adjustment screw.

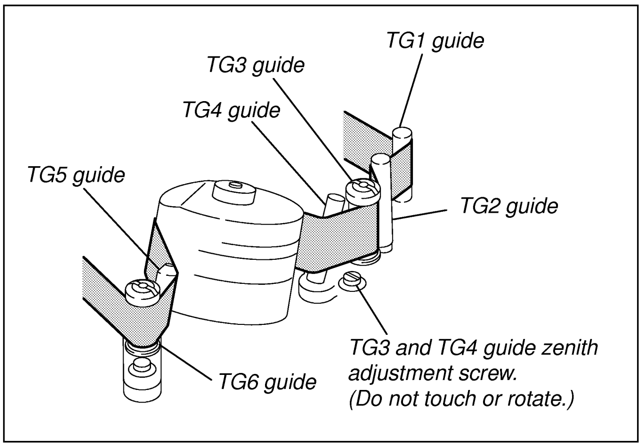

TG1 guide
TG3 guide
TG4 guide
TG5 guide
TG2 guide
TG3 and TG4 guide zenith adjustment screw.
(Do not touch or rotate.)
TG6 guide

Fig. 4-4

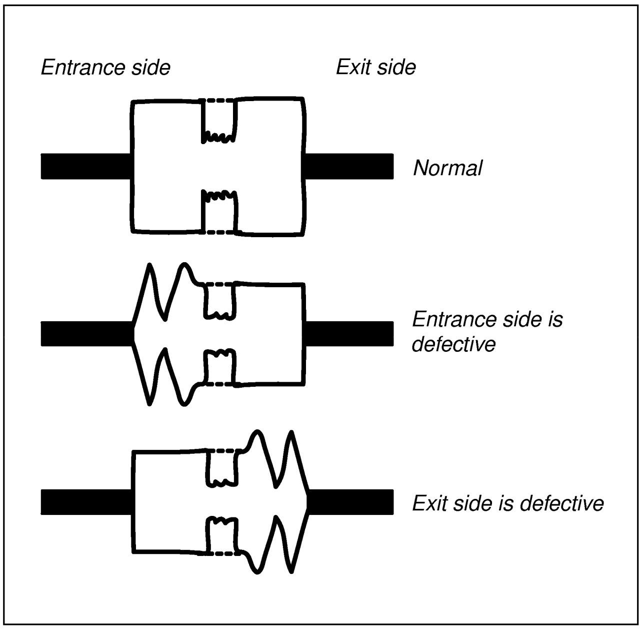

Entrance side
Exit side
Normal
Entrance side is defective
Exit side is defective

Fig. 4-5

4-3. TG3 Guide Adjustment

1) Play the tracking alignment tape (XH2-1) (Ref. No. J-5) back.
2) Run the tape in FWD mode. Confirm that tape runs while keeping contact with upper flange of TG3. If any clearance is found between top flange and tape, rotate the adjustment nut in clockwise direction until tape runs while keeping contact with upper flange of TG3.

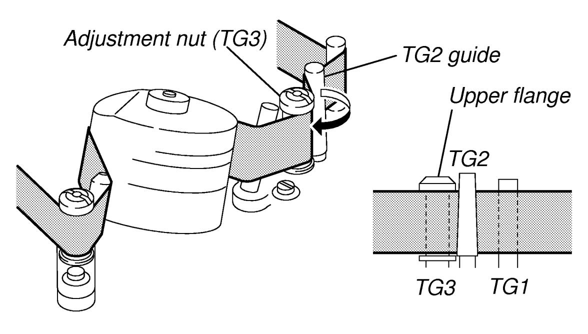

Adjustment nut (TG3)
TG2 guide
Upper flange
TG2
TG3
TG1

Fig. 4-6

When tape runs while keeping contact with upper flange of TG3, confirm that the tracking waveform does not change. If the tracking waveform has poor amplitude at the entrance side as shown, perform tracking adjustment of entrance side.

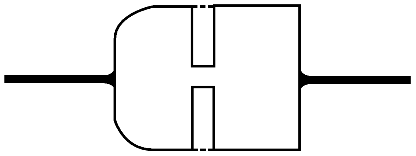


Fig. 4-7

After entrance side is adjusted, establish the RVS mode. Make an attempt to rotate the TG3 adjustment nut by 180 degrees in the counter-clockwise direction in order to confirm that tape rises upward. Upon confirmation, return the TG3 adjustment nut to the original position.

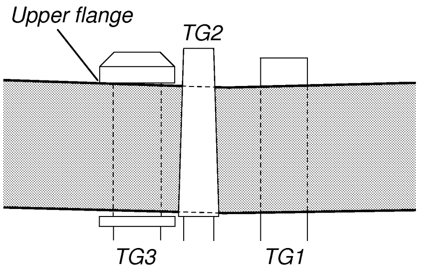

Upper flange
TG2
TG3
TG1

Fig. 4-8

4-4. TG7 Guide Adjustment

1) Establish the FWD mode. Confirm that tape slack does not occur in between capstan and TG7 guide. (Specification value: 0.5 mm or less of tape slack) If any tape slack occurs, rotate the tG7 guide to remove the tape slack.
2) Establish the REV mode. Confirm that RF waveform at exit side is normal. (Refer to Fig. 4-10.)
3) If the RF waveform at exit side has abnormality, rotate the TG7 nut by 90 degrees in counter-clockwise direction. Then perform steps 1) and 2) again.

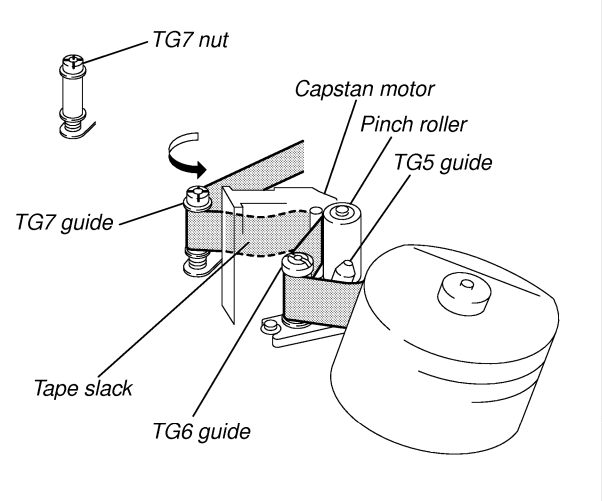

TG7 nut
Capstan motor
Pinch roller
TG5 guide
TG7 guide
Tape slack
TG6 guide

Fig. 4-9

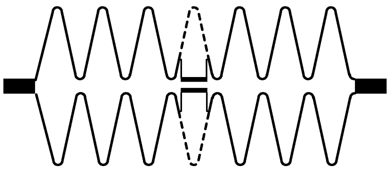


Fig. 4-10

4-5. Check upon Completion of Adjustment

1. Tracking Check

1) Play the tracking alignment tape (XH2-1) (Ref. No. J-5) back.
2) Confirm that RF waveform has amplitude of about 0.65A (65%) in the FWD mode taking the waveform amplitude during CUE/ REV mode as A (= 100%). (Refer to Fig. 4-11.)

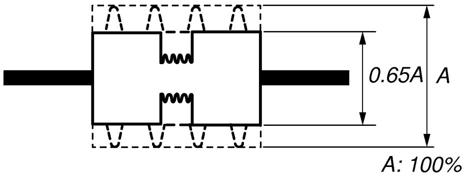


Fig. 4-11

3) Confirm that difference between the minimum amplitude (E.min) and the maximum amplitude (E.max) of RF waveform in the FWD mode is 30% or more taking the waveform amplitude during CUE (or REV) mode as A (= 100%).

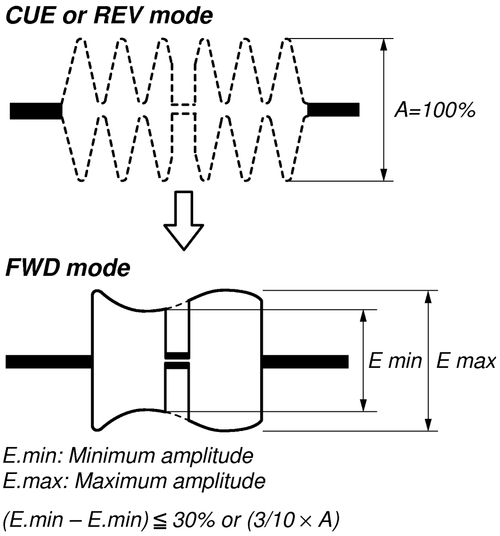

CUE or REV mode
A=100%
FWD mode
E min
E max
E.min: Minimum amplitude
E.max: Maximum amplitude
(E.min – E.min)≦ 30% or (3/10 × A)

Fig. 4-12

4) Confirm that the RF waveform does not have excessive fluctuation.

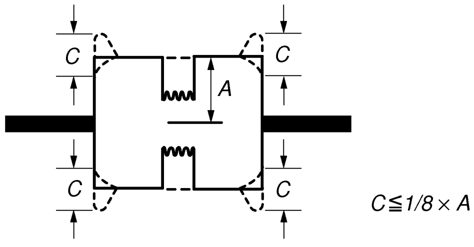


Fig. 4-13

2. CUE/REV Check

1) Play the tracking alignment tape (XH2-1) (Ref. No. J-5) back and enter the REV mode. Confirm that pitches between peaks of RF waveform are equally spaced. (Refer to Fig. 4-14.)
   If pitches between peaks of RF waveform are not equal, perform sections "4-2 Tracking Adjustment" and "4-4. TG7 Guide Adjustment".
2) Enter the CUE mode. Confirm that pitches between peaks of RF waveform are equally spaced. (Refer to Fig. 4-14.) If pitches between peaks of RF waveform are not equal, perform sections "4-2 Tracking Adjustment".

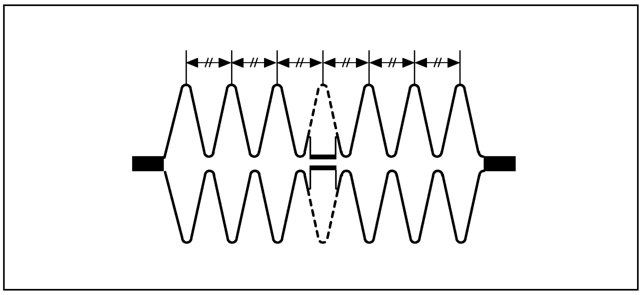


Fig. 4-14

3. Rise-up Check

1) Play the tracking alignment tape (XH2-1) (Ref. No. J-5) back.
2) Establish the FWD playback mode. Confirm that RF waveform rises up in two seconds or less. Confirm also at this time that tape slack does not occur at around pinch roller.
3) Run a tape in CUE/REV mode and FF/REW mode. After that play the tape back and confirm that RF waveform rises up in two seconds or less.
4) Repeat steps 2) and 3) repeatedly.

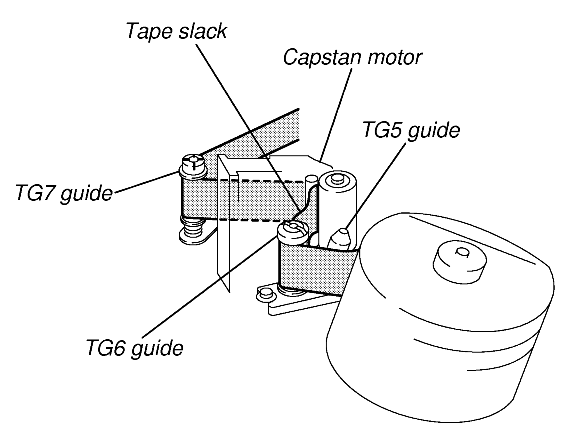


Fig. 4-15

4. Tape Run Check

Run a tape in CUE/REV mode. Confirm to see that major tape curl does not occur at TG2 lower taper, TG3 upper flange, TG6 upper flange and TG7 upper flange during CUE/REV mode.

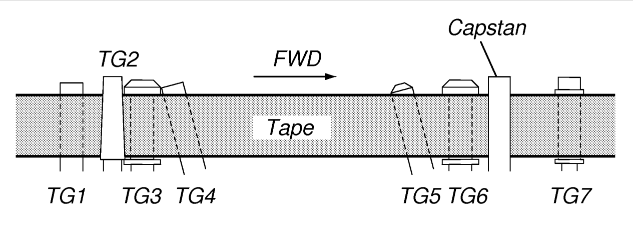
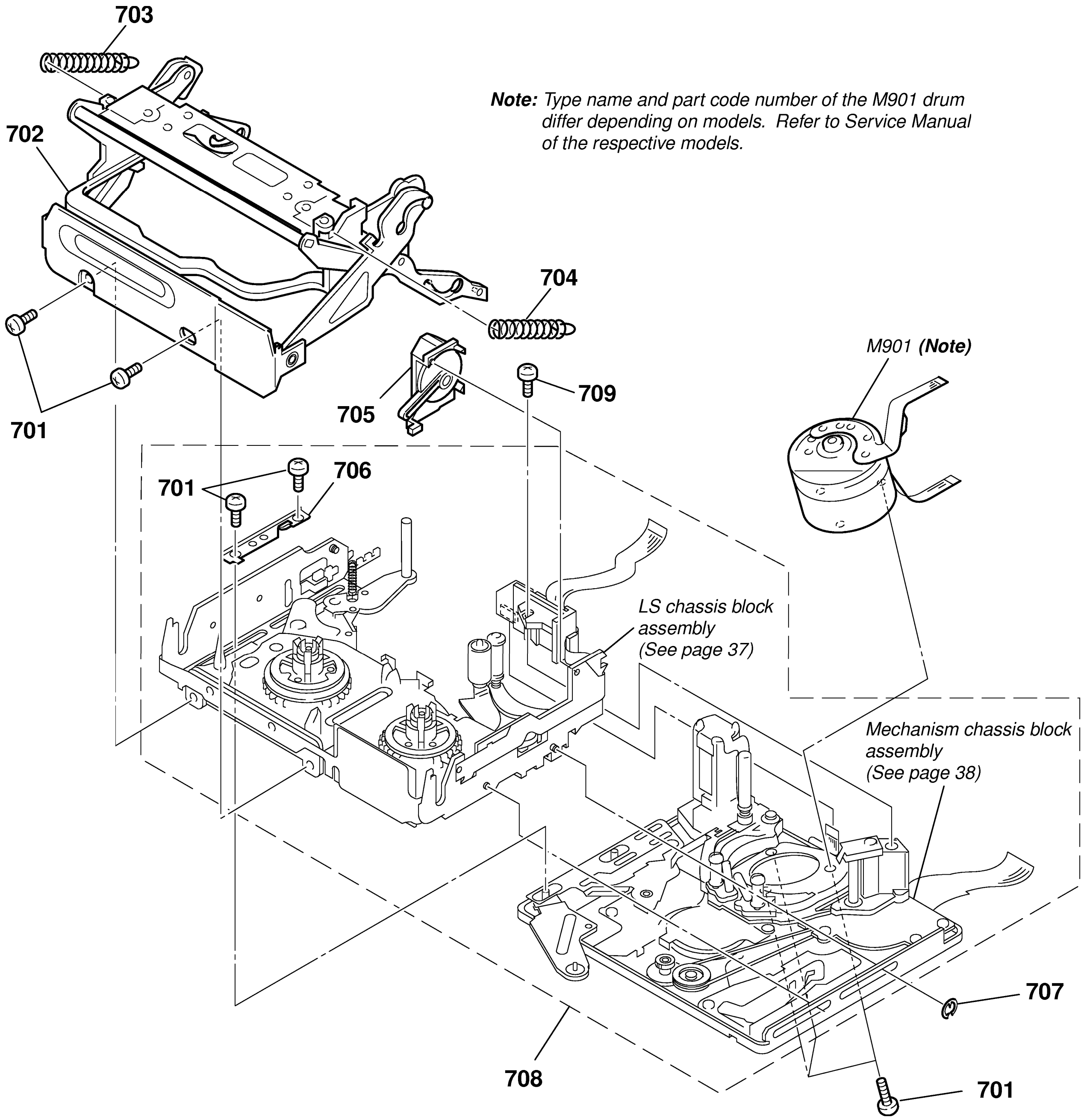


Fig. 4-16

5. Exploded View

5-1. Cassette Compartment Block Assy, Drum Assy Block

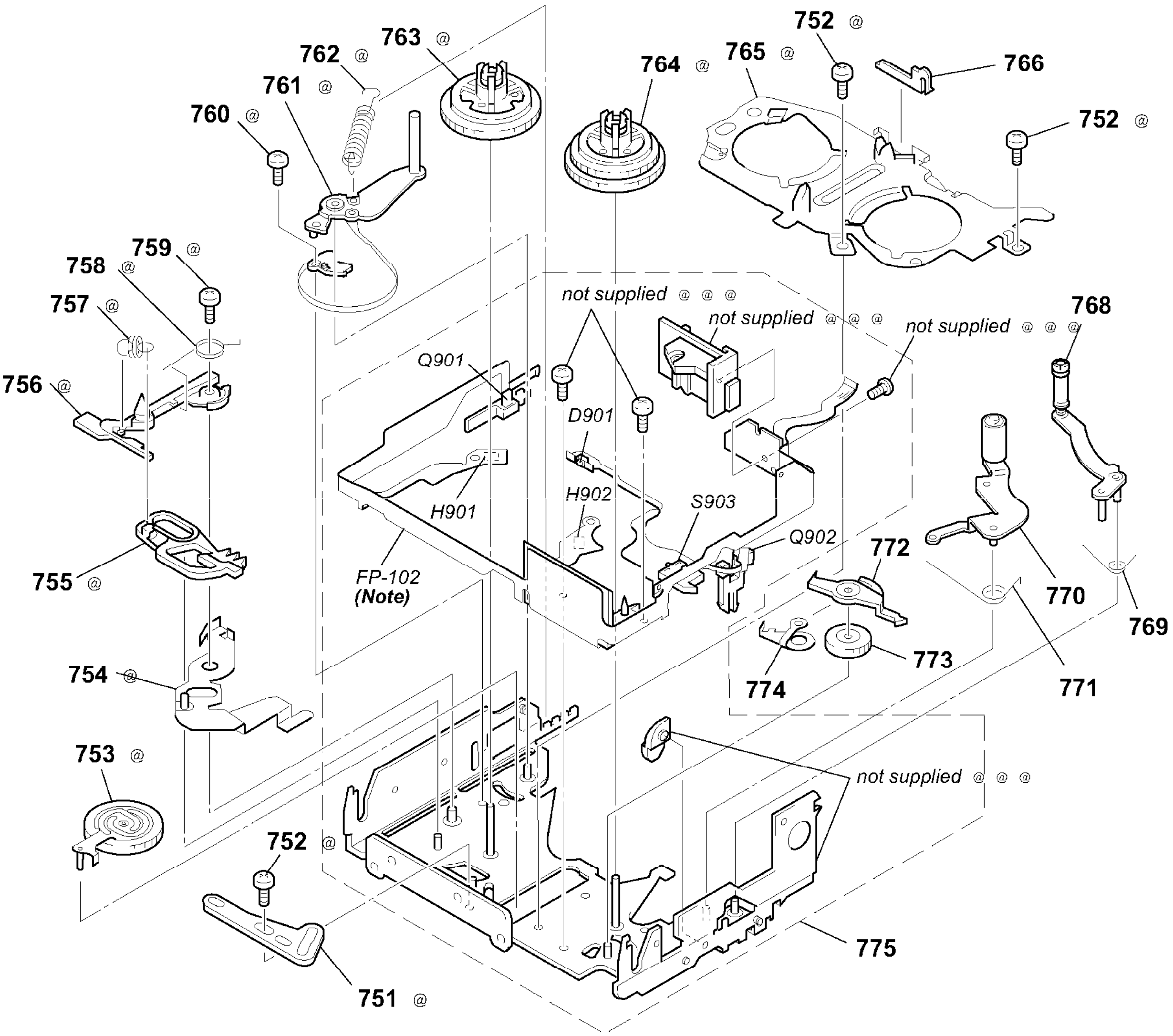


Note: *Type name and part code number of the M901 drum differ depending on models. Refer to Service Manual of the respective models.*

703
702
704
M901 (Note)
709
705
701
701
706
LS chassis block assembly (See page 37)
Mechanism chassis block assembly (See page 38)
707
708
701

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
701	3-703-816-14	SCREW (M1.4)		706	3-059-101-01	RETAINER, LS GUIDE	
702	X-3950-369-2	CASSETTE COMPARTMENT ASSY		707	7-624-102-04	STOP RING 1.5, TYPE -E	
703	3-059-082-01	SPRING, TENSION		708	A-7028-133-A	MD(J100) SUB ASSY (Y)	
704	3-059-208-01	SPRING (CASSETTE COMPARTMENT T)		709	3-703-816-41	SCREW (M1.4X2.5), SPECIAL HEAD	
705	X-3950-370-2	DAMPER ASSY		M901	— Note —	DRUM	

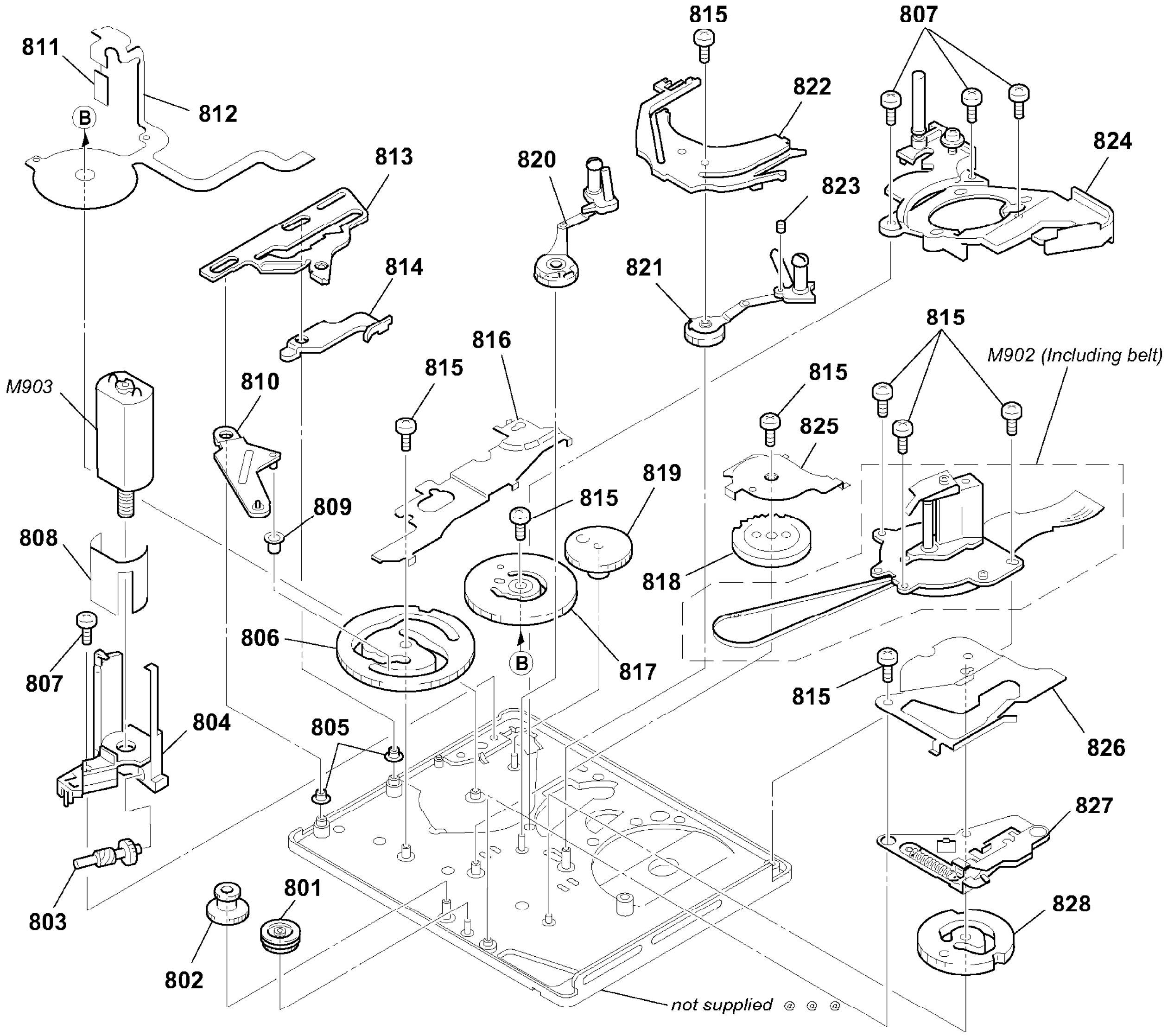
5-2. LS Chassis Block Assy


752 @
763 @
762 @
761 @
760 @
764 @
765 @
766
752 @
759 @
758 @
757 @
756 @
768
not supplied @ @ @
not supplied @ @ @
not supplied @ @ @
Q901
D901
H901
H902
S903
Q902
772
770
769
771
773
774
FP-102
(Note)
755 @
754 @
753 @
not supplied @ @ @
752 @
775
751 @

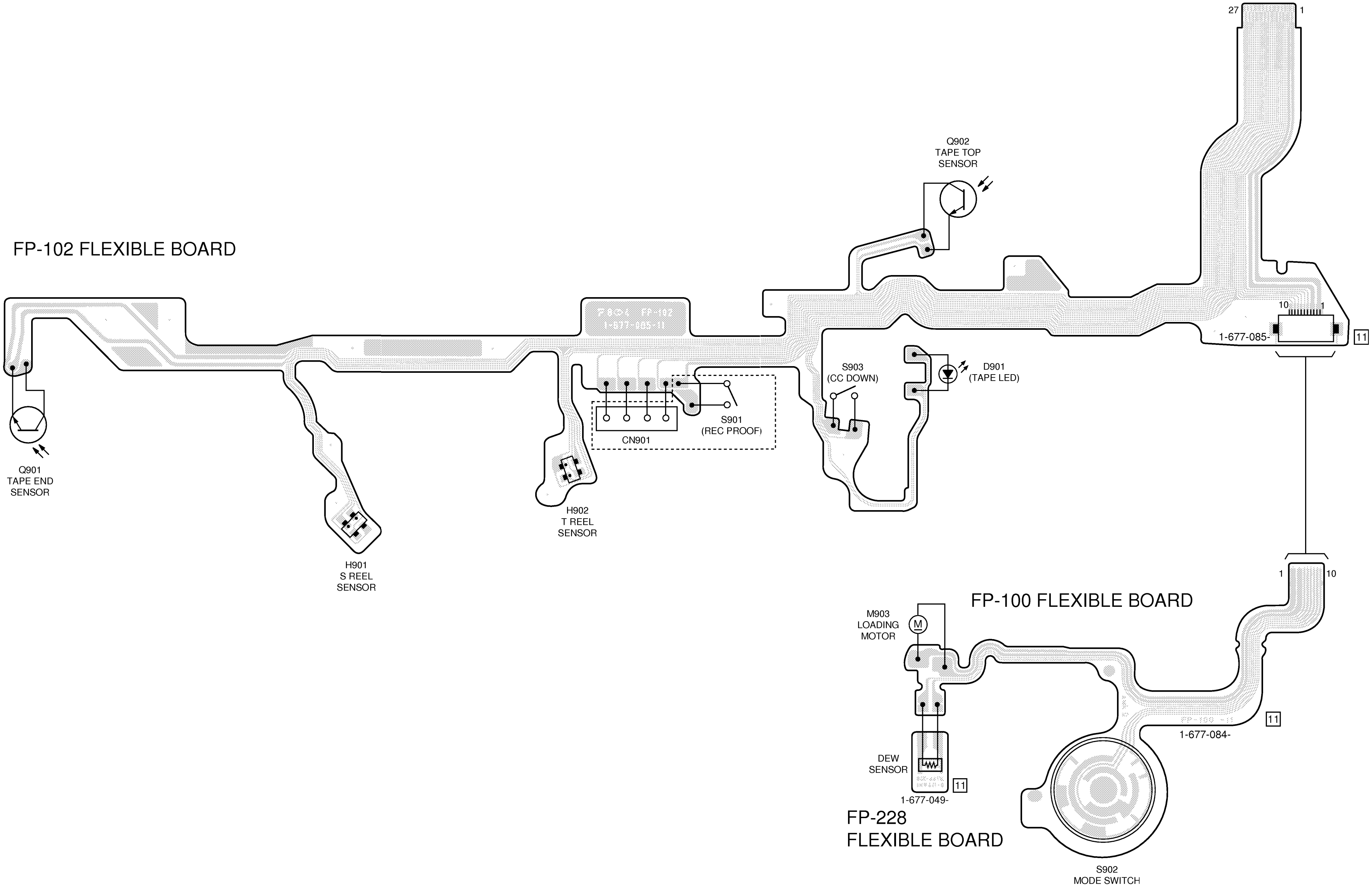
Note: *FP-102 is included in the LS sub assy and is attached to chassis by hot-press. Because installation of FP-102 requires a very high accuracy, FP-102 is not supplied as an independent service parts.*

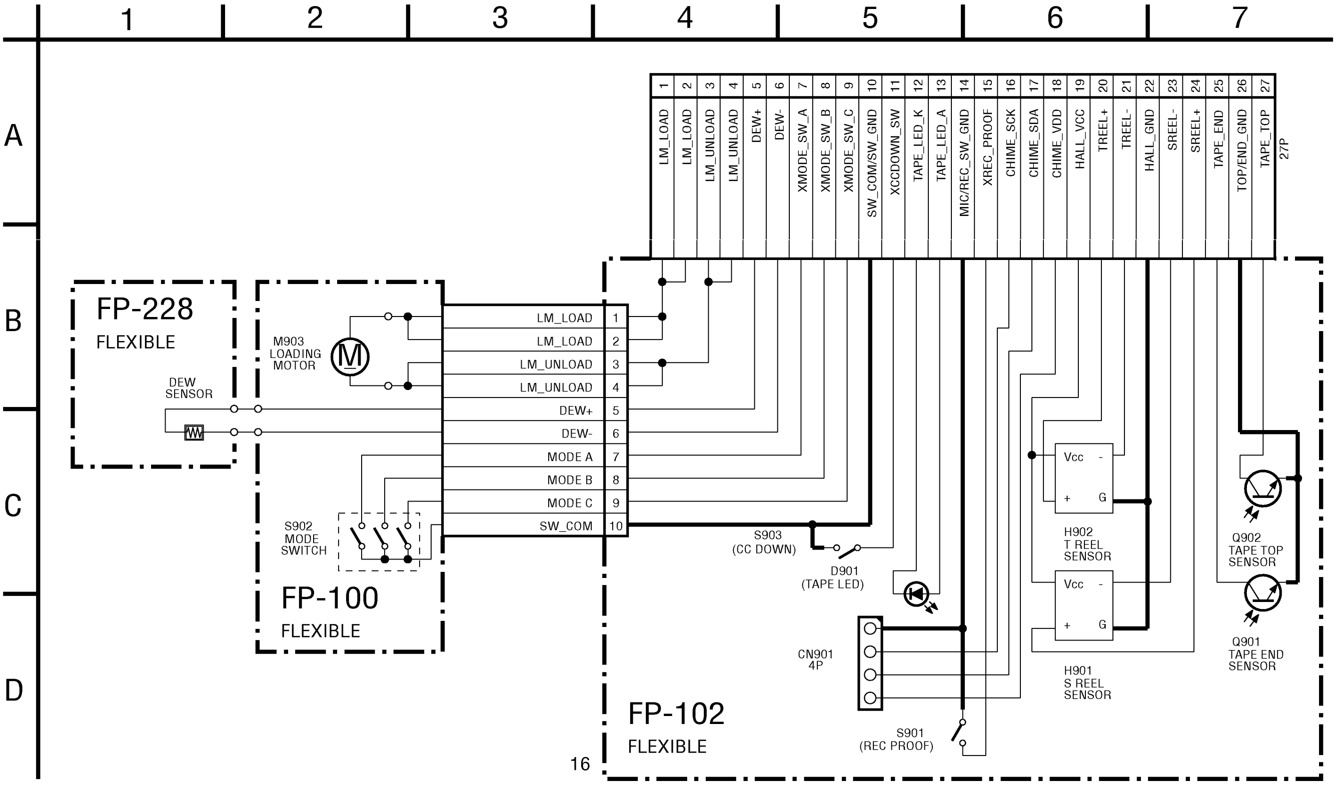
Ref. No.	Part No.	Description	Remarks
751	3-059-173-01	PLATE, LS CAM	
752	3-059-100-01	SCREW (M1.4X1.4), SPECIAL HEAD	
753	X-3950-364-1	GEAR ASSY, GOOSENECK	
754	X-3950-371-1	ARM ASSY, BRAKE (S) DRIVING	
755	3-059-166-01	BRAKE (S)	
756	3-059-146-01	POSITIONING (S), CASSETTE	
757	3-059-167-01	SPRING (BRAKE S), TENSION COIL	
758	3-059-169-01	SPRING (BRAKE S ARM), TORSION	
759	3-703-816-14	SCREW (M1.4)	
760	3-059-090-01	SCREW (M1.4X2.5), SPECIAL HEAD	
761	X-3950-358-2	TG1 ASSY	
762	3-059-156-01	SPRING (TENSION REGULATOR)	
763	X-3950-365-2	TABLE ASSY, S REEL	
764	X-3950-366-1	TABLE ASSY, T REEL	
766	3-059-093-01	RETAINER, LED	
768	A-7094-819-A	TG7 BLOCK ASSY	
769	3-059-165-01	SPRING (TG7 RETURN), TORSION	
770	X-3950-359-1	ARM ASSY, PINCH	
771	3-059-161-01	SPRING (PINCH RETURN), TORSION	
772	3-059-170-01	BRAKE (T)	
773	3-059-171-01	GEAR (T), BRAKE	
774	3-059-172-01	SPRING (T), BRAKE	
775	A-7094-816-A	LS BLOCK ASSY	
D901	8-719-078-71	DIODE LA57A,SO (TAPE LED)	
H901	8-719-067-74	ELEMENT, HOLE HW-105A-CDE-T (S REEL)	
H902	8-719-067-74	ELEMENT, HOLE HW-105A-CDE-T (T REEL)	
Q901	8-729-028-71	TRANSISTOR PN 166, SO (TAPE END)	
Q902	8-729-028-71	TRANSISTOR PN 166, SO (TAPE TOP)	

5-3. Mechanism Chassis Block Assy


815
807
811
812
B
822
824
813
820
823
814
821
816
815
M902 (Including belt)
815
M903
810
815
825
815
819
809
815
808
818
806
B
817
807
804
805
815
826
827
801
803
828
802
not supplied

Ref. No.	Part No.	Description	Remarks
801	3-059-211-01	GEAR, CONVERSION	
802	3-059-220-01	GEAR, RELAY	
803	3-059-187-01	SHAFT, WORM	
804	3-059-186-03	HOLDER, MOTOR	
805	3-060-002-01	ROLLER, LS GUIDE	
806	3-059-189-01	GEAR (A), CAM	
807	3-703-816-41	SCREW (M1.4X2.5), SPECIAL HEAD	
808	3-059-225-01	SHIELD, MOTOR	
809	3-059-191-01	ROLLER, LS	
810	3-059-190-01	ARM, LS	
811	1-677-049-11	PWB, FP-228 FLEXIBLE	
812	1-677-084-11	PWB, FP-100 FLEXIBLE	
813	3-059-149-01	SLIDER, TG1 CAM	
814	3-059-148-01	ARM, TG1 DRIVING	
816	3-059-117-01	COVER (A), GEAR	
817	X-3950-367-1	GEAR ASSY, MODE	
818	3-059-139-01	GEAR, GL DRIVING	
819	3-059-188-01	GEAR, DECELERATION	
820	A-7094-818-A	COASTER (S) BLOCK ASSY	
821	A-7094-817-A	COASTER (T) BLOCK ASSY	
822	3-059-126-01	RAIL, GUIDE	
823	3-962-914-01	SCREW (M1.4X2)	
824	A-7094-822-A	DRUM BASE BLOCK ASSY	
825	3-059-118-01	COVER (B), GEAR	
826	3-059-083-01	COVER (C), GEAR	
827	X-3950-368-1	ARM ASSY, PINCH DRIVING	
828	3-059-192-01	GEAR (B), CAM	
M902	8-835-685-01	MOTOR, DC SCD18A/C-NP (INCLUDING BELT)	


FP-102 FLEXIBLE BOARD
27
1
Q902
TAPE TOP
SENSOR
10
1
1-677-085-
11
S903
(CC DOWN)
D901
(TAPE LED)
S901
(REC PROOF)
CN901
Q901
TAPE END
SENSOR
H902
T REEL
SENSOR
H901
S REEL
SENSOR
1
10
FP-100 FLEXIBLE BOARD
M903
LOADING
MOTOR
M
11
1-677-084-
DEW
SENSOR
11
1-677-049-
FP-228
FLEXIBLE BOARD
S902
MODE SWITCH


1
2
3
4
5
6
7
A
B
C
D
LM_LOAD
LM_LOAD
LM_UNLOAD
LM_UNLOAD
DEW+
DEW-
XMODE_SW_A
XMODE_SW_B
XMODE_SW_C
SW_COM/SW_GND
XCCDOWN_SW
TAPE_LED_K
TAPE_LED_A
MIC/REC_SW_GND
XREC_PROOF
CHIME_SCK
CHIME_SDA
CHIME_VDD
HALL_VCC
TREEL+
TREEL-
HALL_GND
SREEL-
SREEL+
TAPE_END
TOP/END_GND
TAPE_TOP
27P
FP-228
FLEXIBLE
DEW SENSOR
M903
LOADING
MOTOR
M
LM_LOAD
LM_LOAD
LM_UNLOAD
LM_UNLOAD
DEW+
DEW-
MODE A
MODE B
MODE C
SW_COM
S902
MODE
SWITCH
FP-100
FLEXIBLE
S903
(CC DOWN)
D901
(TAPE LED)
CN901
4P
S901
(REC PROOF)
H902
T REEL
SENSOR
H901
S REEL
SENSOR
Vcc
+
G
Q902
TAPE TOP
SENSOR
Q901
TAPE END
SENSOR
FP-102
FLEXIBLE
16

7. Electrical Parts List

FP-102

Ref. No.	Part No.	Description	Remarks
		FP-102 FLEXIBLE (Not supplied) **************************	
			(Ref.No.;6000Series)
		< DIODE >	
D901	8-719-078-71	DIODE LN57A.SO	
		< HOLE ELEMENT >	
H901	8-719-067-74	DIODE HW-105A-CDE-T	
H902	8-719-067-74	DIODE HW-105A-CDE-T	
		< TRANSISTOR >	
Q901	8-729-028-71	TRANSISTOR PN166.SO	
Q902	8-729-028-71	TRANSISTOR PN166.SO	
		< SWITCH >	
S903	1-771-326-41	SWITCH, PUSH (1KEY) (CC DOWN)	

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